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20 August 1979

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No. 5

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CHINA REPORT

SCIENCE AND TECHNOLOGY

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PHYSICAL SCIENCES

SEISMIC SURVEY OF FAULTS IN DONGXING OILFIELD CONDUCTED

Beijing DIQIU WULI ZUEBAO [ACTA GEOPHYSICA SINICA] in Chinese No 2,
Apr 79 pp 140-155

[Article by Li Qingzhong [2621 1987 1813], Yu Shoupeng [0205 1108 2590],
Liu Wenlin [0491 7186 2651], Liu Chengzheng [0491 2052 2973]: "A Case
History of Seismic Survey on Dongxing Oilfield--A Practical Example of
3-D Seismic Interpretation on a Complex Fault Block Structure"]

[Text] ABSTRACT

Dongxing Oilfield is a typical complex structure cut by many faults. A precise seismic survey of the oilfield's fault block system proved to be quite effective. This paper describes some of the early 3-D seismic interpretation (stereo-migration) techniques employed in the oilfield. Some of the methods are still valuable to the current 3-D seismic prospecting as well as the geological interpretation of fault planes. In recent years, a simpler deep structure was found below this complex shallow structure by use of the digital seismic data. Several figures are presented showing the relationship between the shallow structure and the deep one.

FORWARD

The Dongxing Oilfield is located in the eastern part of China, near the mouth of the Yellow River. Composed of the Dongying structure and Xingzhen structure, the oilfield measures 20 km long and 8 km wide. It is well known for its unique complex fault block structure (Figure 1). In 1960, two upwarped structures were discovered from a few seismic profiles. In 1961-1962, they were proved to be oil-bearing structures through the boring technique, and seismic workers immediately began to conduct detailed surveys. Within the scope of 150 sq km, there are extremely large numbers of faults contained inside the Lower Tertiary strata, and all of them are normal faults. The oil deposits are governed by the faults, and rich deposits of oil and gas are found near the faults (Figure 2). Thus, the first thing to do in exploration was to accurately pinpoint the positions of the faults.

In the early days, as the seismic survey technique had not yet come into existence, there was no way to produce adequately detailed surveys of faults. It was through years of continuous groping and experimenting that tangible results were finally achieved in the seismic survey of rocks.

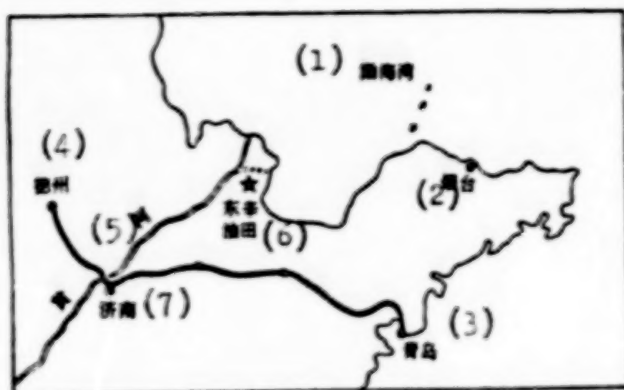


Figure 1 Map showing position of Dongxing Oilfield

Key:

1. Bohai Gulf
2. Yantai
3. Qingdao
4. Dezhou
5. Yellow River
6. Dongxing Oilfield
7. Jinan

Structural Maps Produced From Three Different Stages--General Survey, Detailed Survey and Precise Survey--and Their Geological Results

Here are three structural maps. The first one was completed in 1960 (Figure 3) through the general survey stage when the seismic cross section (included in the map sheet) covered approximately 90 km, and the distance between the survey lines was 2-3 km. This led to the discovery of the Dongxing structure (which was then drawn as a round dome) and the Xingzhen structure (half-side stoss-and-lee structure); the first discovery well was successfully bored, thus opening up a new prospect for oil exploration in the area. But in Figure 3, there were only two faults, which showed an extremely superficial understanding of the faults at the time; moreover, as we now know, the positions were not accurate either. The depth of the second reflection marker bed (equivalent to the biolithite cap on top of the Oligocene Series) was checked through 30 subsequently drilled wells, and the average error in the deep strata amounted to 98 meters, while the maximum error was 470 meters.

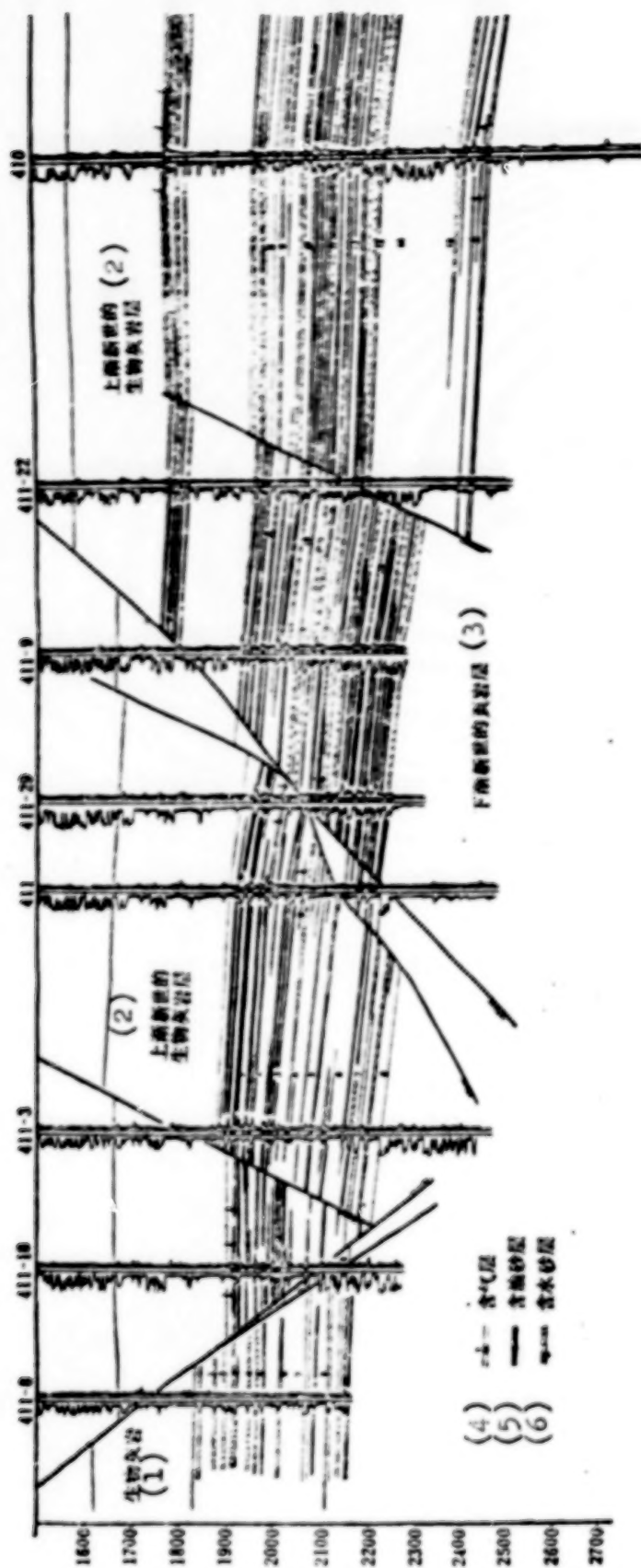


Figure 2 Oil deposits under the control of the faults, and rich pockets of oil and gas near the faults.

Key:

1. biolithite
2. biolithite layers of the Upper Oligocene Epoch
3. shale layers of the Lower Oligocene Epoch
4. gas-bearing strata
5. oil-bearing strata
6. water-bearing strata

1960

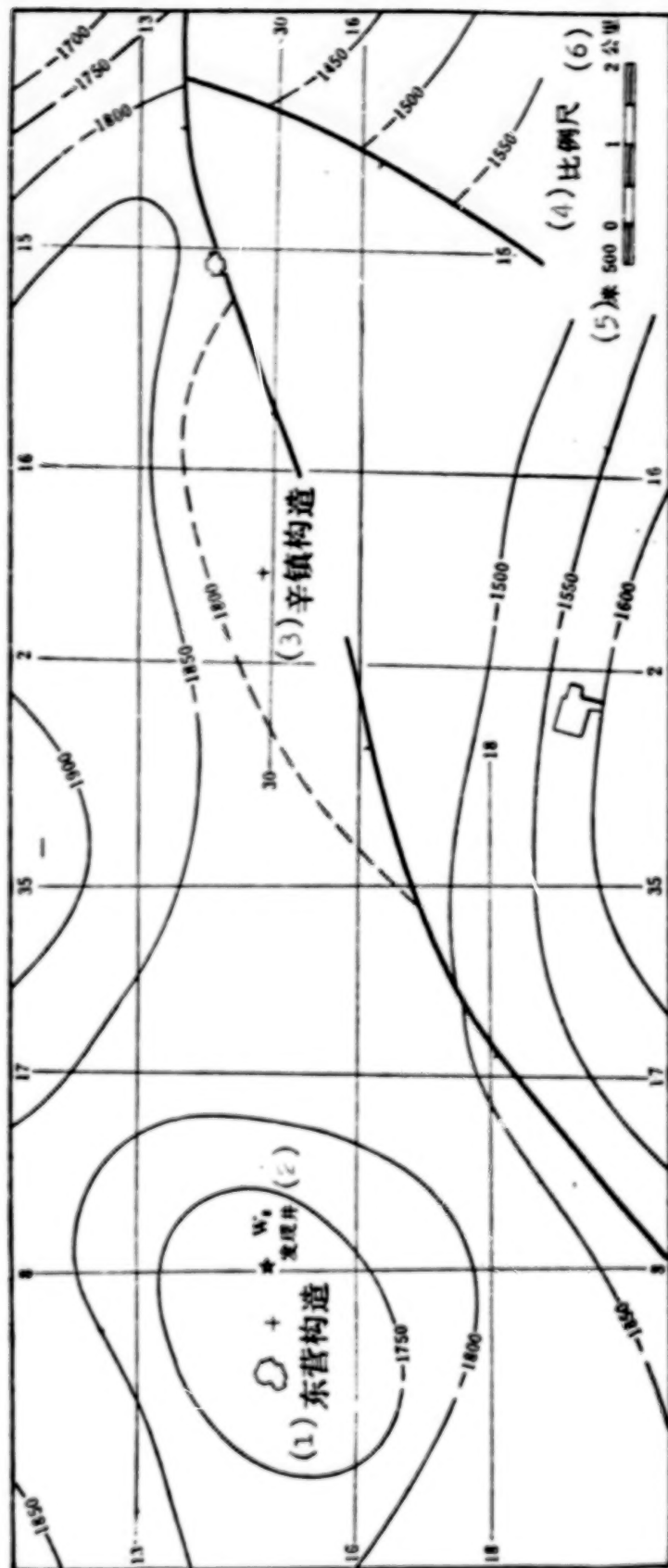


Figure 3 Second marker bed structure map in 1960

- Key:
- 1. Dongying structure
 - 2. discovery well
 - 3. Xingzhen structure

- 4. scale
- 5. meter
- 6. kilometer

1963

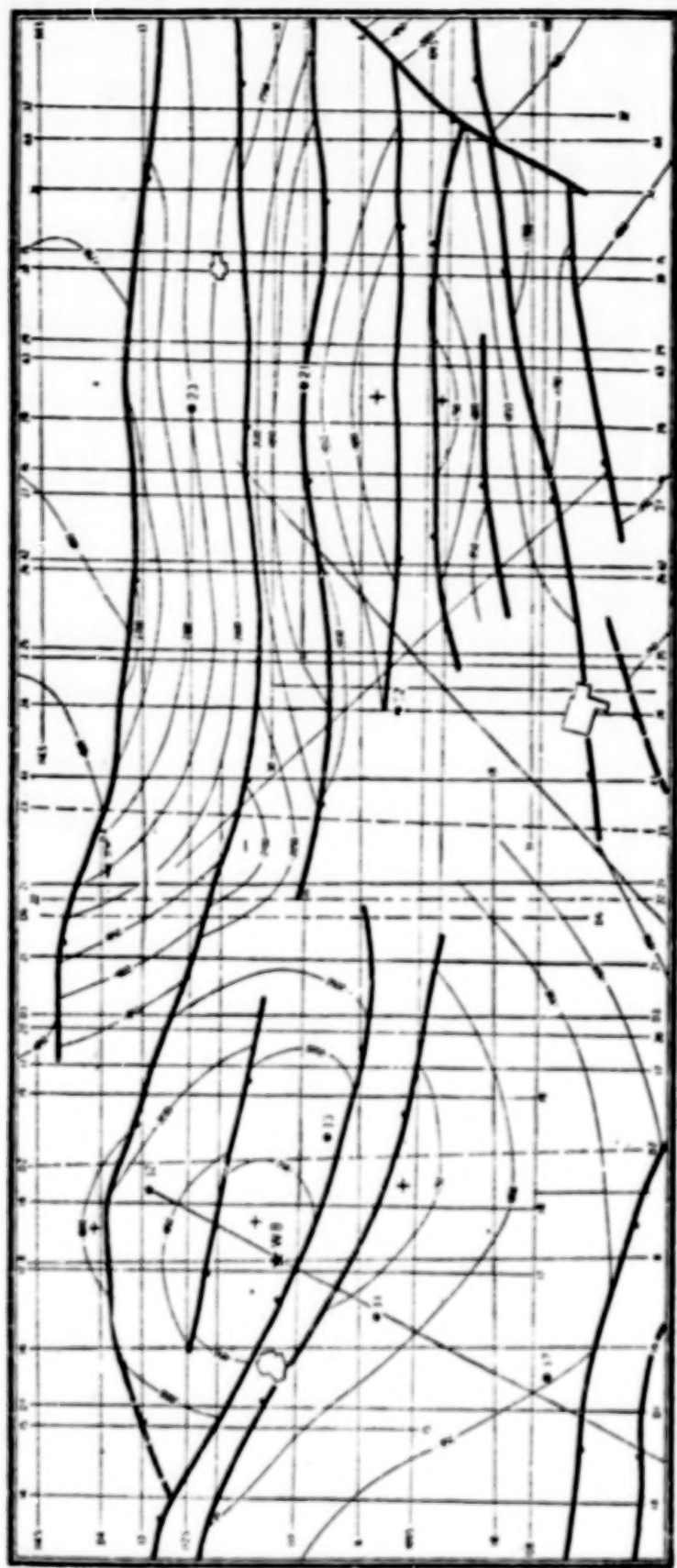


Figure 4 Second marker bed structure map in 1963

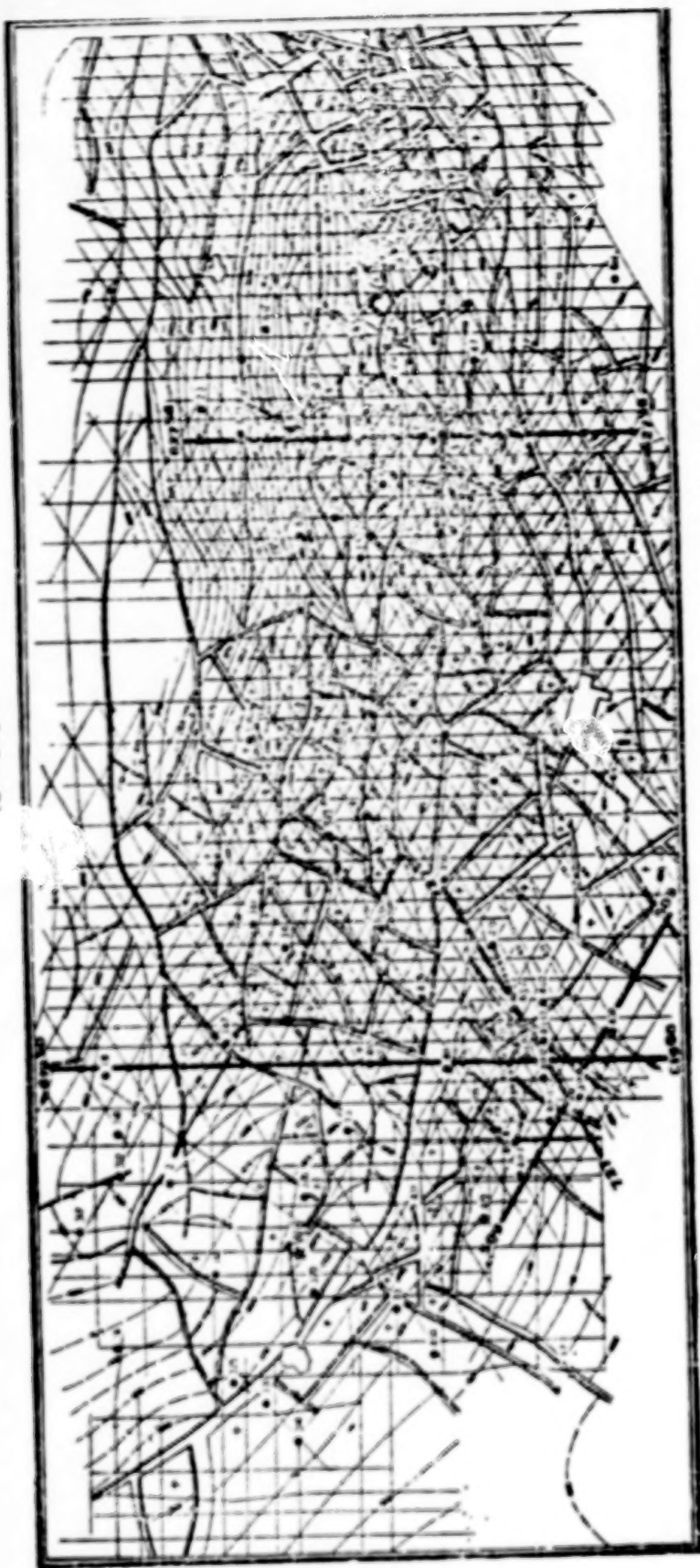


Figure 5 Second marker bed structure map in 1966-1969

The second map was finished in 1963 (Figure 4). During this period, 380 km of detailed survey lines were used. As a result, the distance between the main survey lines running from south to north reached 1 km, and the total seismic work amounted to 470 km. Sixteen faults were discovered; among them, a large fault located at the southern side of the Dongying structure was reflected on the map, and the position was accurately drawn. But as there was no knowledge of the low angle fault then, the large fault was interpreted as two separate ones. The position error of the large fault in the north reached 500 meters, which was fairly big. Eight faults running from east to west in the Xingzhen structure were basically recognized, which was an excellent beginning for the seismic interpretation of the faults in the area. However, the degree of precision was still to be desired. According to statistics from 32 subsequently drilled wells, the mean depth error was 50 meters, and the maximum error was 165 meters.

The third map was done in separate periods from 1966 to 1969 (Figure 5). Within the span of 3 years, a total of 1,180 km of precise seismic survey lines were completed, during which time experimentation and production were conducted simultaneously. The proper use of areal arrays and automatic control devices helped to improve recording work. In addition, the triangulation method consisting of a network of triangles whose sides measures 300 meters helped to make 3-D seismic interpretation possible. Thus, the survey results came quite close to the actual subterranean fault system. Altogether, 198 faults were discovered, and 174 fault blocks were classified. Subsequently, drilling data verified the existence of relatively important faults bordering on oil enriched blocks. In subsequent exploration work, this map proved to be very valuable. According to statistics based on 66 wells which were drilled after the map had been completed, the mean depth error of the second market bed was 15 meters, the errors of the fault dot positions on the plane averaged 150 meters.

The Techniques and Measures Used in the Successful Precise Survey of the Faults

Following are the techniques and features used in the precise survey of the faults:

1. The adoption of relatively strict 3-dimensional triangulation in the field survey network.

As shown in Figure 5, it adapted fairly well to the faults running in every direction. The survey line distance was 260 meters, the triangle sides measures 300 meters, and each intersection point of the three survey lines constituted a shotpoint. The purpose of this technique was to interpret the reflection planes and fault planes from three directions. The observation system consisted of continuous single-cover sections with 600 meter split spreads. Six-eight areal multiple geophones were employed in field work, and 3-6 mixed channels were used indoors. Instruments included a DZ571 light dot recorder and a DZ661 analog magnetic tape recorder, both of which were manufactured in China. Figure 6 shows a typical record. In general, the recording quality was fairly good.

Time Section

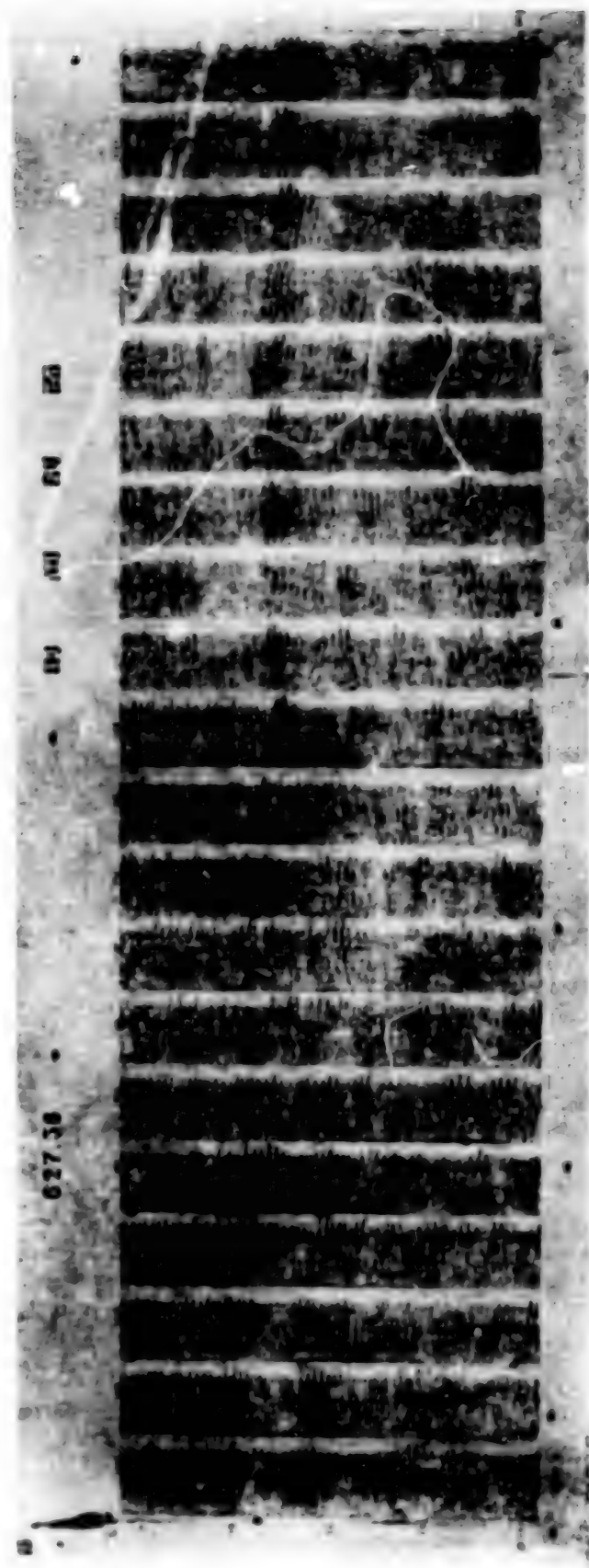


Figure 6 Waveform chart showing 627.56 survey line primary record

2. Improvements in record correlation and fault interpretation techniques

Over the past 3 years, there has been remarkable improvements in the geological interpretation of seismic sections. From Figures 7 and 8 it is evident that the 1968 cross section chart is much better than the one made in 1964. The chief reasons are: (1) In 1964, the field recording signal noise level was relatively low; (2) The level of record correlation was relatively advanced in 1968; (3) (In 1968) it was found that the dip angles of the fault planes in the area were relatively low, whereas in 1964 the faults were misinterpreted as nearly vertical.

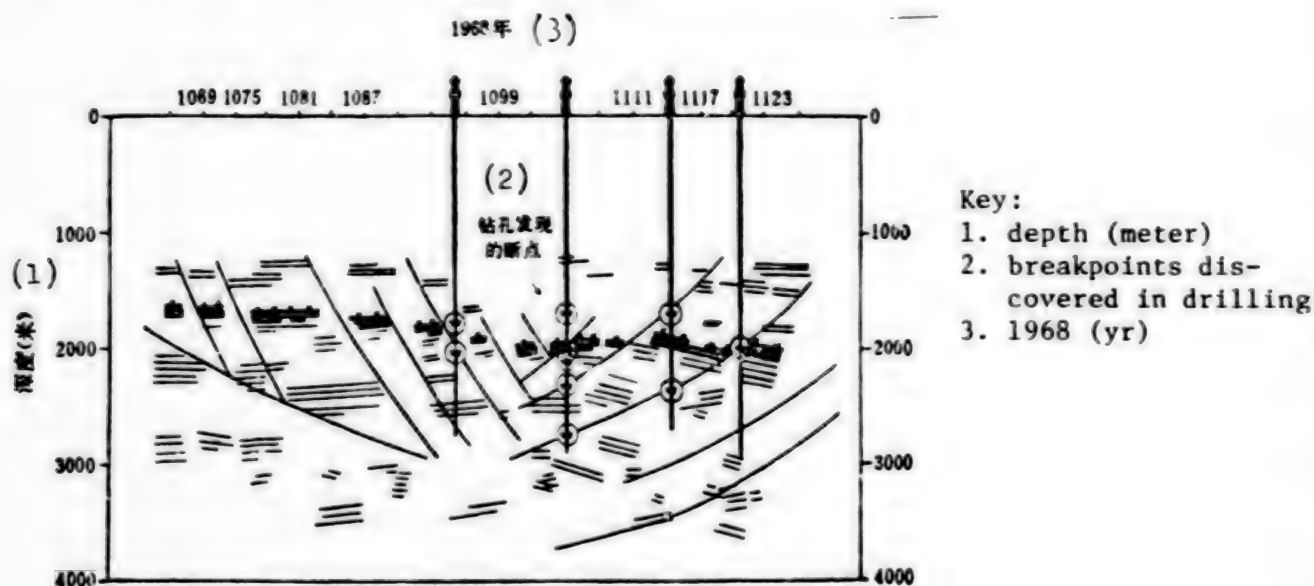


Figure 7 627.56 depth section in 1968

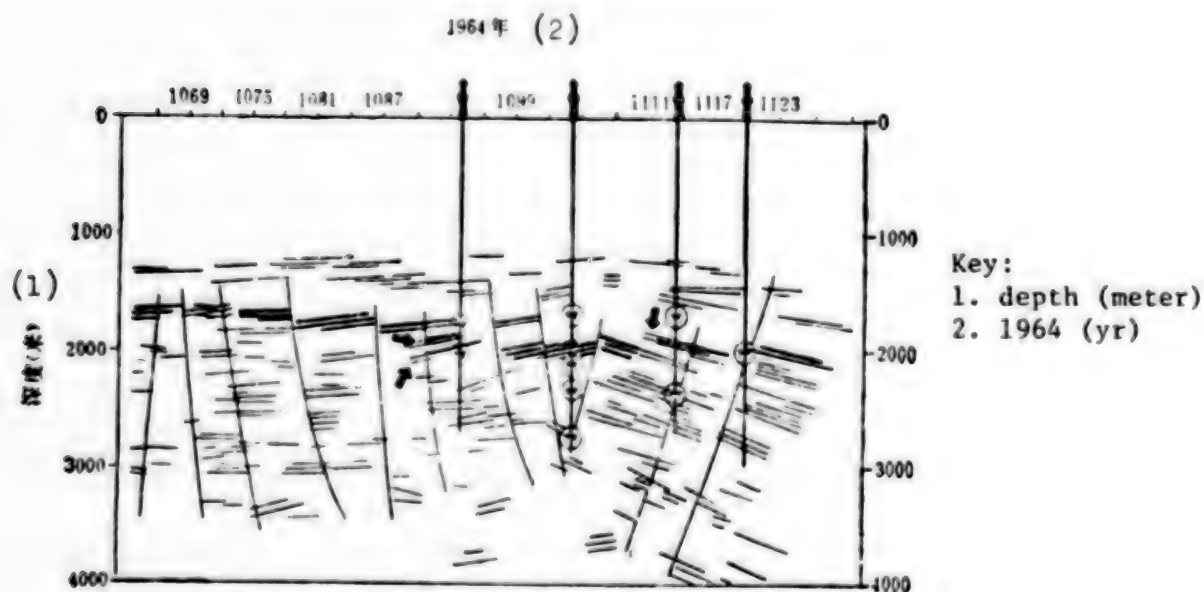


Figure 8 627.5 depth section in 1964

3. The recognition and utilization of abnormal events and amplitude screening phenomena

Figure 9 shows survey line 619.50; reflection waves from fault planes (see northern part of map) and fault plane diffusion waves (see southern part) were discovered in the 1967 interpretation profile chart. In Figure 7 (627.56), the correlators recognized the diffraction waves and correctly migrated them onto the fault edges. But originally in Figure 8, the correlated diffraction sections of the reflection waves were too long (marked with arrows in Figure 8), causing difficulties in the interpretation of fault planes. The fault planes caused energy screening phenomena to occur in certain sectors of the area. This kind of phenomena was caused by localized total reflection on the fault plane. The fact that a fault was erroneously interpreted as vertical prior to 1965 was also related to the phenomena. The screening effects all occurred directly below the interruption point of the great fall in a strong reflection wave (approximately at the depth of 800-2000 meters). (Subsequently, when this area was covered, the energy screening effect was greatly improved.)

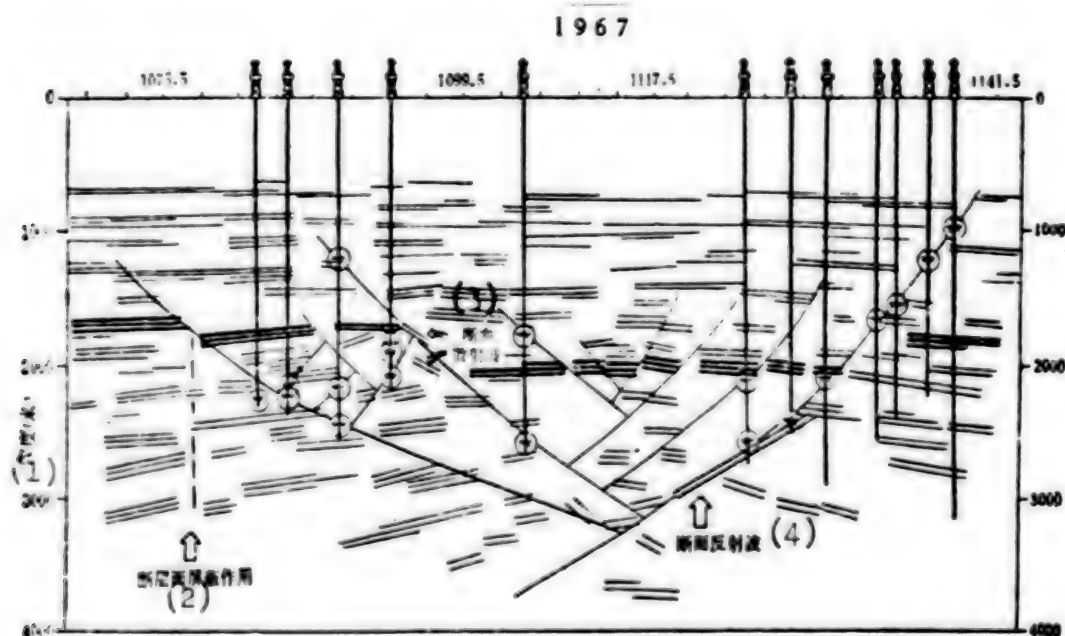


Figure 9 Depth profile of survey line 619.50 in 1967

Key:

1. depth (meter)
2. fault plane screening effect
3. fault plane scattering waves
4. fault plane reflection waves

4. The closure check of fault planes

In the past, the spatial closures of fault planes were often neglected when interpreting faults, e.g. the interpreter would base his fault interpretation entirely on a profile map, which often led to the following consequences: (1) Sometimes the inclination angle of the same fault on adjacent survey lines became steep, and sometimes it became low, or the position of the fault shifted back and forth, resulting in absence of pattern; (2) the occurrence of unreasonable spacing of fault planes, i.e. sometimes the same horizon on the intersecting point of survey lines running in different directions was regarded as an ascending wall and sometimes as a descending wall of the same fault, which was self-contradictory. Often there was no way of discovering such contradictions prior to the "closure check of fault planes." The so-called "closure check of fault planes" requires that on survey lines running in different directions, the fault planes must pass through in between the ascending wall's reflection segment and the descending wall's reflection segment in the fault being interpreted. Figure 10 explains the relations in the closure. Generally, the first step is to interpret faultlines by proceeding from the fault's relatively distinct survey lines 601, 602, 603, and map out the plane contour of the fault plane. The unreasonable results on individual survey lines should be corrected. Then, based on the intersecting points, the closure is done on survey lines 500 and 700 respectively. For instance, in Figure 10(E), the fault plane of survey line 500 must pass through in between b and c, f and g, as well as m and o, and the fault plane should be very low angled. Similarly, the closure process of the fault in survey line 700 should also be used as means of checking whether the interpretation of the fault in survey lines 601-603 is reasonable. This is known as the fault plane closure checking technique used on 2-D migrated depth profiles. If the section in question is a time section that has not been migrated, then the interpretation of the faultlines will be even more difficult. If the section in question is a 3-D migrated depth profile (or time section), then all we need to have is the depth (or equivalent time) of the closure fault directly on the point of intersection.

5. 3-D migration done manually

The use of triangulation survey lines on the field enables us to find the correct spatial position and occurrence of each and every reflection event. The relationship between Δt_1 , Δt_2 and Δt_3 , which are the three directional components of the dip stepout (i.e., the inclined moveout time of a specific event per unit length), and ΔT , which is the total vector quantity, must satisfy the following:

$$\Delta T \cdot \cos \theta_i = \Delta t_i, \quad (i = 1, 2, 3)$$

Thus, with Δt_1 , Δt_2 and Δt_3 , it is possible to crossplot the magnitude and position of ΔT . The smaller the crossplotted triangles are, the more reliable the correlations become (as in Figure 11). Besides, with two groups of wave interference records, it is possible to distinguish which wave groups belong to the same waves.

The crossplot checking method is actually a fairly good means of checking the correlation of records, and it often helps the interpreter to avoid making the same correlation mistakes as before. If intersection points can not be found, it often indicates that the waves are not normal reflection waves at all.

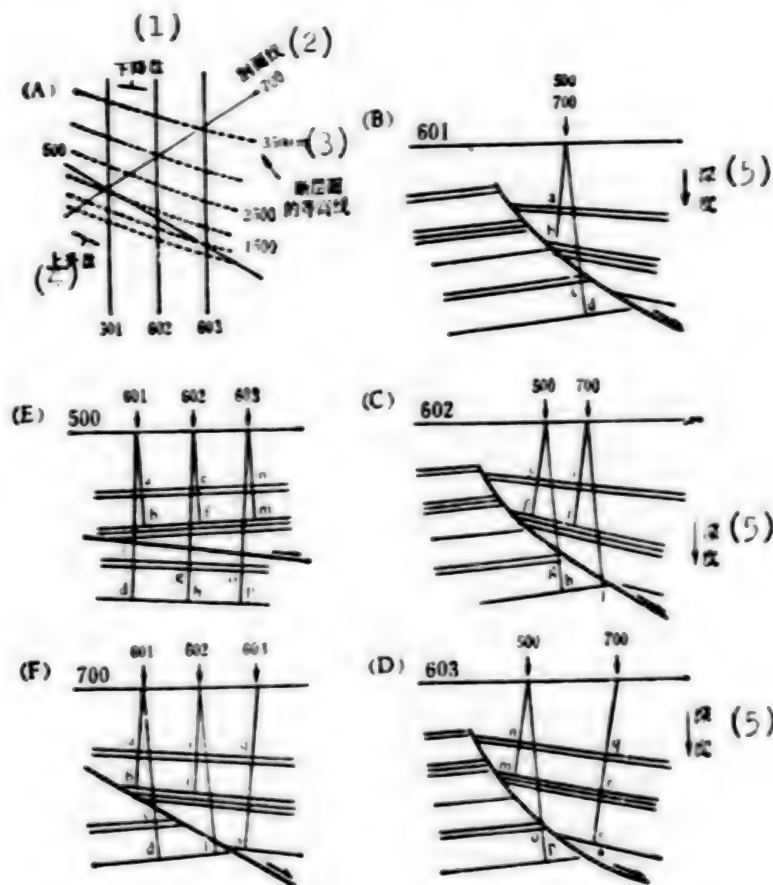


Figure 10 Concept of fault plane space closure checking method

Key:

1. descending wall
2. profile line
3. fault plane contour
4. ascending wall
5. depth

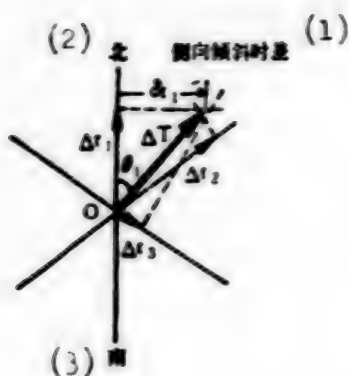


Figure 11 Schematic diagram of Δt_1

Key:

1. lateral dip stepout
2. north
3. south

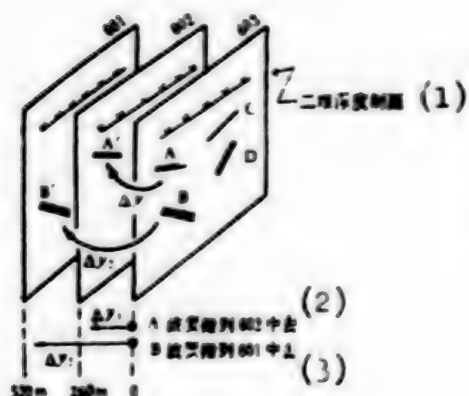


Figure 12 Schematic diagram of sections rearranged by migration

Key:

1. 2-D depth section
2. A-wave should be shifted into 602
3. B-wave should be shifted into 601

With total vector quantity ΔT , we can find out the total spatial migration. Moreover, we can also find out δt_1 —the lateral dip stepout of every reflection wave in each survey line:

$$\delta t_i = \Delta T \cdot \sin \theta_i, \quad (i = 1, 2, 3)$$

Based on reflection time t_0 and δt_1 , we can look up the migration chart for the lateral migration Δy , which, in turn, can be used for the 3-D migration of reflection segments.

The 3-D migration technique employed in the Dongxing Oilfield consisted of shifting all the reflection segments one by one from a series of 2-D migrated depth profiles to their designated cross sections (to whichever survey line is closer to Δy , as shown in Figure 12) in accordance with their lateral migration magnitude Δy . Before shifting them to new sections, it is necessary to correct the depths (following the shifting, the depths become shallow).

The depth correction is found as follows:

$$\Delta Z = -R(1 - \cos \phi^*),$$

$$\phi^* = 2 \arctan \left[e^{\frac{1}{2} \frac{V_p}{V_s} K_0} \cdot \tan \left(\frac{1}{2} \arcsin \frac{V_p \cdot \delta t_1}{L} \right) \right].$$

In the expressions, K is the curved path's isochronous circle radius,

ϕ^* is the apparent inclination perpendicular to the survey line,

V_0 and K are the surface velocity and velocity vertical gradient

Surface velocity $V = V_0(1 + KZ)$. Z is vertical depth.

L is the spread length in computing the stepout time Δt_1

δt_1 is lateral dip stepout.

Actually, a kind of precalculated graphic chart is used for rectifying the depths. ΔZ values can be directly obtained from the chart.

After shifting the reflection segments into the new sections, they should be marked with arrows indicating which direction they had come from. Thus, the sections can also tell us the lateral inclination of the reflection segments. When all the reflection segments are shifted through 3-D migration, we can get a series of 3-D migration section charts, which are the end results.

The Advantages of Using 3-D Spatial Migration Section Maps in Geological Interpretation

Following are the advantages of using 3-D spatial migration section maps:

1. The sections are real vertical profiles which can correctly reflect the spatial segments of reflection segments, thus eliminating the interferences from various lateral waves which used to happen in 2-D depth profiles. For example, in Figure 13, the breakpoints encountered by the three wells in survey line 727 conform very well to fault No ② in the 3-D migrated section. But in the 2-D migrated section 727 (Figure 14), the breakpoints of the wells are all located in a group of integral reflection segments, which defies correct interpretation. Actually, this group of reflection segments should be shifted away.
2. As the sections are real vertical profiles, it is very easy to check the fault planes with the closure technique; checking is easy as long as the breakpoint depths at the intersection points are uniform. When plotting the structural maps, the closure of reflection layers can also be done by directly measuring the vertical depth at the point of intersection. The structural map does not have to go through spatial correction. Moreover, it is possible to directly correlate the well drilling data as there is no need to consider the lateral migration of reflection segments.
3. Just as in ordinary 2-D depth profiles where the fault positions can be determined from the variation points of the reflection segment occurrences between different fault blocks, the various lateral migrations in the 3-D depth profiles can often indicate the existence of faults. This is illustrated in Figure 13 by fault No ①① which is located in survey line 727, and in Figure 17 by fault No ① in survey line 619.5.

4. Just as in ordinary 2-D sections where the occurrences of stratigraphic reflection waves and fault reflection waves are often opposite to each other, the faults in 3-D sections are often reflected either by the "reversed migration segments" which are in opposite direction to most of the reflection migrations, or by the "sandwich" effect which consists of a long-distance migration layer sandwiched between two short-distance migration layers from above and below. For example, in Figure 17, fault No ① has two fault plane waves migrating in opposite directions.

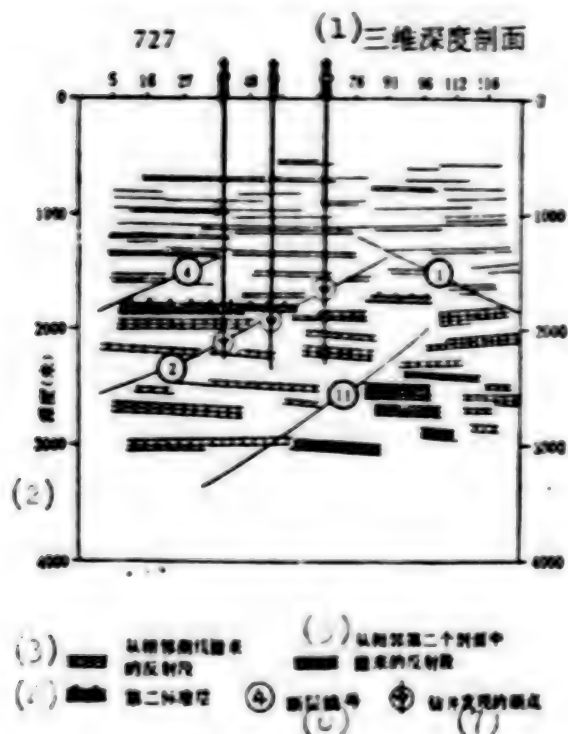


Figure 13

Key:

1. 3-D depth profile
2. depth (m)
3. reflection segment migrated from adjacent survey lines
4. second marker bed
5. reflection segment migrated from the second adjacent section
6. fault number
7. breakpoint discovered by well drilling

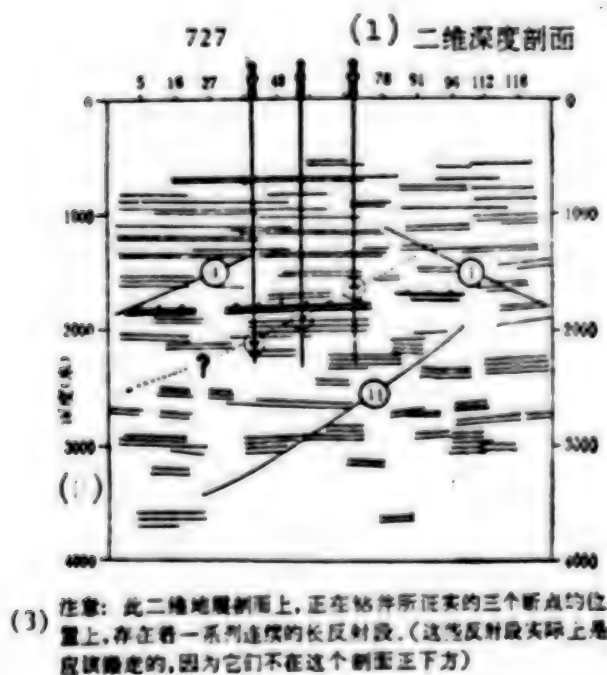


Figure 14

Key:

1. 2-D depth profile
2. depth (m)
3. Note: In the above 2-D seismic profile, we can see a series of continuous and extensive reflection segments located just at the three breakpoints verified by the well bores (Actually, the reflection segments should be moved out because they are no longer directly below the profile).

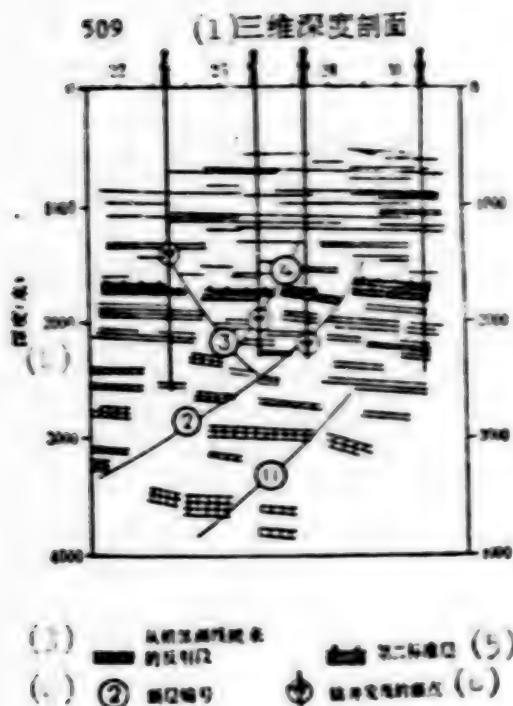


Figure 15

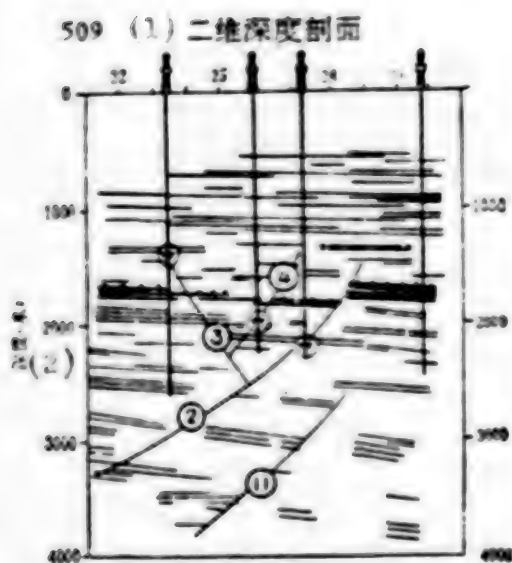


Figure 16

Note: As shown in the chart, at the depth of 2,100 meters, there was a long reflection segment passing through in between two fault planes; Δt_1 graphic tests indicated that the correlation of this long reflection segment was erroneous.

The reflection segment inclinations below shotpoints No. 27-28 are erroneous too. Δt_1 graphs have verified that their occurrences should be relatively steep.

This type of 3-dimensional interpretation provides stringent testing of wave correlation results and fault plane interpretations. Take the 2-D depth profile of 509 (Figure 16) as an example: Controlled by a well bore breakpoint, fault No ② passed through a long reflection segment, and was consequently considered nonexistent in the course of stereo correlation (no intersecting points could be found in the Δt_1 graphs). In the same profile, there was a reflection segment approximately 2,000 meters below point No 28; at first, this segment was set in a horizontal position; but later, stereo Δt_1 graphic tests corrected the error, and proved that its occurrence was relatively steep. It was subsequently verified by adjacent profiles.

It should be noted that the three profile charts 727, 509 and 619.5 in the article represent three different directions, and that each section has been checked with the closure technique. Although some of the faults seem to be insufficiently based on single sections, they are relatively clear from survey lines running in other directions, and most of the faults have already been verified by well drilling.

Dongxing Oilfield's 3-D migration work was completely done by hand. However, even if we use computers to do 3-D migration in the future, the preceding experiences on the stereo interpretation of faults will serve as valuable reference.

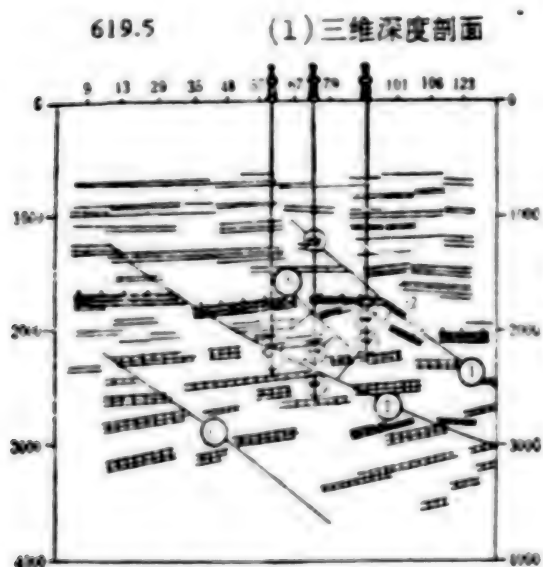


Figure 17

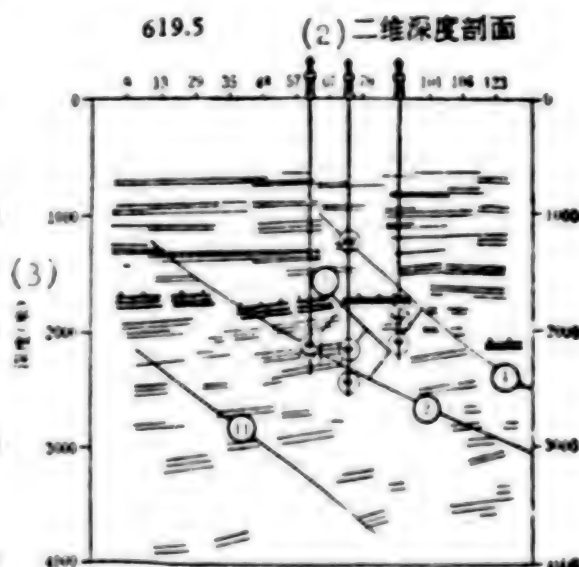


Figure 18

- | | |
|-----------------|----------------|
| (1) 三维深度剖面 | (7) 从相邻第二个剖面移来 |
| (2) 二维深度剖面 | (8) 第二反射标准层 |
| (3) 深度 (m) | (9) 钻井证实的断点 |
| (4) 从相反方向移来的反射段 | |
| (6) 断点编号 | |

Figures 17 (left) and 18 (right)

- | | |
|---|---|
| 1. 3-D depth profile | 5. reflection segment shifted from opposite direction |
| 2. 2-D depth profile | 6. fault number |
| 3. depth (m) | 7. shifted in from second adjacent profile |
| 4. reflection segment shifted from adjacent survey line | 8. second market bed |
| | 9. breakpoint verified by well boring |

Using Multiple Coverage and Digital Processing Techniques To Study Deep Structural Morphology

Having completed the preceding work, the Dongxing Oilfield entered the exploitation stage, and seismic work was temporarily suspended. It was not until 1975 that multiple coverage with digital seismic apparatus was restored in order to study the morphology of deep formation structures, and continue to probe deeper for oil. This time, the multiple coverage network was relatively scattered; the distances between survey lines averaged 1.5 km; a total of 220 km of profiles were made; instruments included the SN338-B and an experimental digital seismic apparatus produced in China; the maximum shot-point distances on the field was approximately 3,000 meters; the migration distance was 650 meters; the group interval was 50 meters; 48 working channels were employed; and 12 coverages were made. For data processing, two computers were used: China's DJS-11 computer, and the U.S. 1704 seismic processor. This produced much better profiles than before, which not only further verified the creditability of the shallow and medium-depth formation structural maps made in 1966-1969, but also opened up a new world in the realm of deep formations, thus leading to the discovery of upwarped structures in the deeper reaches of the Dongying structure and the Xingzhen structure.

In Figures 19-21, survey line 626.5 goes through the south-north profile of the Xingzhen structure. All three sections, including the horizontal stacked section, the stacked migration section and the depth profiles, clearly reveal that the medium formation structure is more complicated than the deep formation structure. At approximately 2,000 meters depth, the profile chart's second reflection marker bed T2 has 13 fault blocks; but at 3,000 meters depth, there are only 5 fault blocks, which is comparatively simple. In the south, a new deep formation upwarp (see figure, left) was discovered. Right beneath the Xingzhen structure, there are two deep fault block ridge high points (center of chart, near fault No 2).

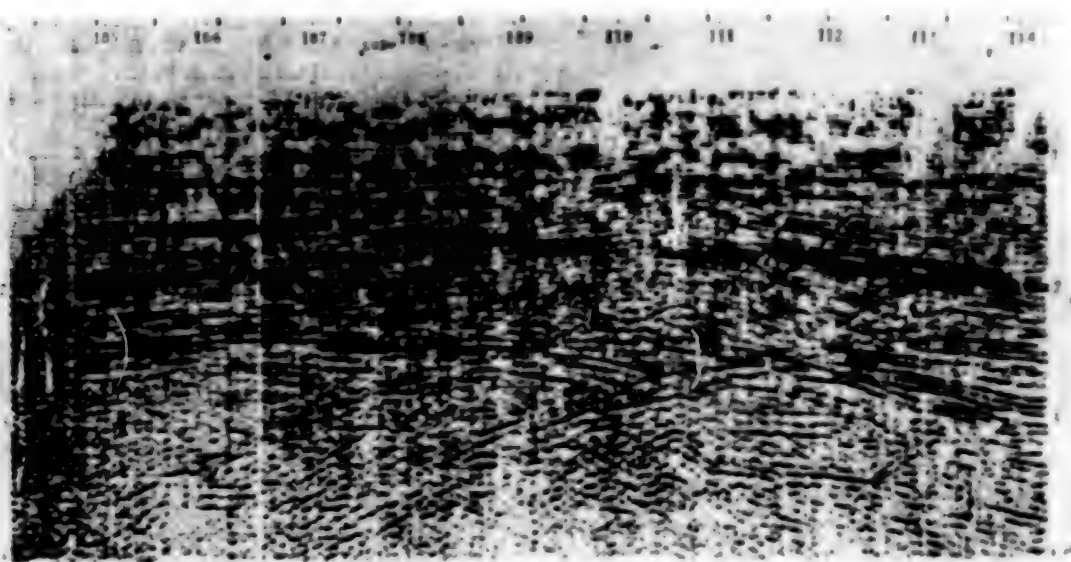


Figure 19 626.5 horizontal stacked time section

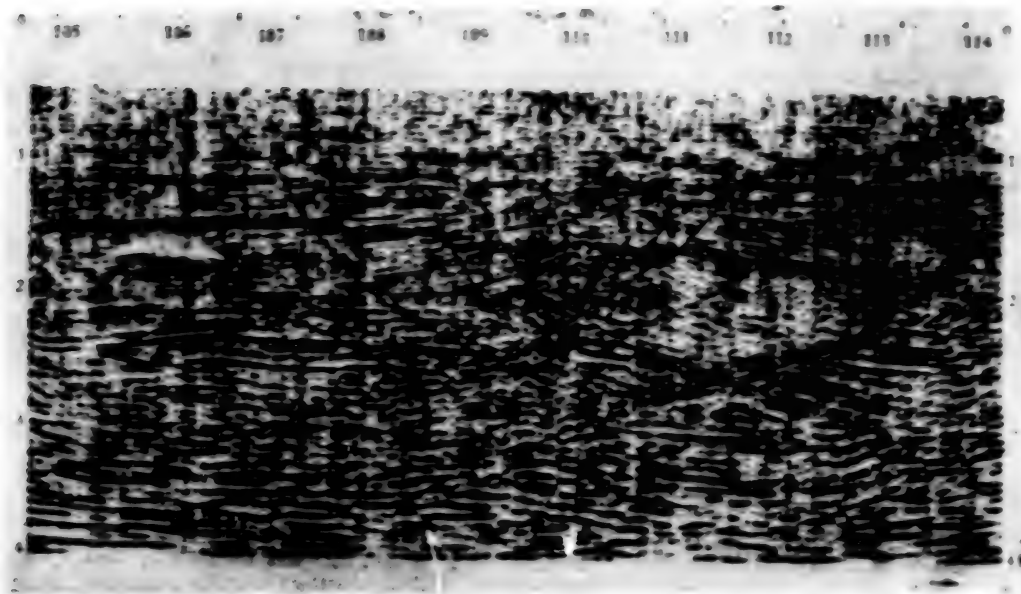


Figure 20 626.5 stacked migration time section

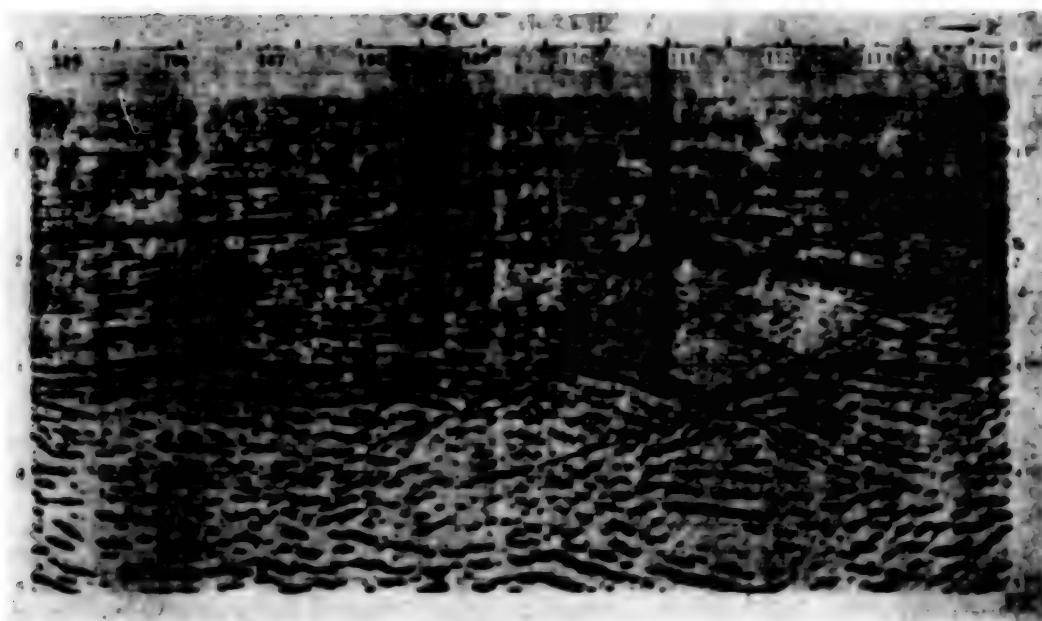


Figure 21 626.5 depth profile

Figure 22 shows the deep formation structures of the Dongxing Oilfield. Deep wells are now being drilled into the two deep structures, and oil formations have been discovered in Xingzhen's stoss-and-lee structure. Apparently, there are great prospects for deep formation oil fields.

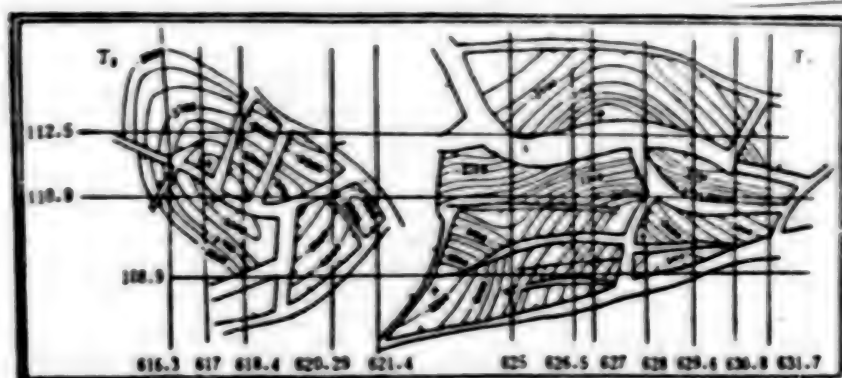


图22 东辛油田深部隆起的构造图

Figure 22 Structural map of deep formation upwarp in Dongxing Oilfield

SUMMARY

The technique of seismic precise survey of faults has proved quite effective in such complicated features as the Dongxing Oilfield. It can be summarized as follows:

1. The 3-dimensional triangulation network is suitable for surveying faults of all directions, and it is the precondition for making stereo interpretation and spatial migration.
2. The Δt_1 graphic method is a good way of checking the accuracy of the correlation of reflection events.
3. The closure check of fault planes is an important link in fault interpretation.
4. The fault surface reflection waves, scattering waves and diffraction waves, which are all anomalous events, are very useful in determining the existence of faults.
5. The 3-D (stereo) migration of profiles can produce real vertical profile data. For geological interpretation, it is very useful to mark out the lateral migration of each and every reflection segment on the 3-D migration section map.

APPLIED SCIENCES

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CSO: 4008

SCIENTISTS AND SCIENTIFIC ORGANIZATIONS

BIOGRAPHIC INFORMATION ON SCIENTISTS

[The following biographic information on selected scientists was extracted from the Chinese-language newspapers, GUANGMING RIBAO published in Beijing; JIEFANG RIBAO published in Shanghai; NANFANG RIBAO published in Guangzhou; and ZHONGGUO XINWEN published in Hong Kong. An abbreviated title, GM, JF, NF or ZGXW as well as the date and page of the source is given at the end of each entry.]

Cheng Jishu [4453 4949 2873]

Deputy Director, Central Meteorological Bureau; Vice Chairman of the Board of Directors, China Meteorology Society; recently attended the plenary session of the Board of Directors of the China Meteorology Society. (GM 6 May 79 p 2)

Fu Chengyi [0265 2110 5030]

Director, Institute of Geophysics, Chinese Academy of Sciences; concurrently Chairman, Earth and Space Sciences Department, China University of Science and Technology. (GM 30 May 79 p 1)

Huang Yaoliang [7806 5069 4382]

Vice President, Guangdong Provincial Academy of Agricultural Sciences. (NF 12 May 79 p 1)

Huang Yifeng [7806 6654 1496]

Vice President, Shanghai Academy of Social Sciences; on 3 May 1979 attended a symposium sponsored by the Shanghai Municipal CYL Committee to celebrate the 60th anniversary of the 4 May movement. (JF 4 May 79 p 1)

Lin Tongji [2651 0681 7535]

Deputy Director, Institute of Mechanics, Chinese Academy of Sciences. (GM 30 May 79 p 1)

Liu Huixian [0491 1863 0341]

Director, Institute of Mechanics, Chinese Academy of Sciences; a noted 67-year-old scientist specializing in engineering mechanics; was recently rehabilitated and admitted to CCP. (GM 23 Jun 79 p 2)

Sun Gengfu [1327 5087 1133]

Deputy Director, Institute of Philosophy, Chinese Academy of Social Sciences. (GM 5 May 79 p 2)

Wang Zhijiang [3769 0037 3068]

Deputy Director, Shanghai Institute of Optics and Precision Instruments, Chinese Academy of Sciences; concurrently Director, Shanghai Institute of Lasers [Shanghai Jiguang Yenjiusuo 0006 3189 3423 0342 4282 4496 2076] Chinese Academy of Sciences; was formally admitted to the Chinese Communist Party on 26 April 1979. (JF 30 Apr 79 p 1)

Wu Zhonghua [0702 0112 5478]

Deputy Director, Institute of Mechanics, Chinese Academy of Sciences; concurrently Chairman, Department of Modern Mechanics, China University of Science and Technology. (GM 30 May 79 p 1)

Xing Benshi [6717 6321 1835]

Deputy Director, Institute of Philosophy, Chinese Academy of Social Sciences. (GM 5 May 79 p 2)

Xu Xurong [1776 0650 8833]

Deputy Director, Institute of Physics, Chinese Academy of Sciences. (GM 30 May 79 p 1)

Zhang Xiangtong [1728 7449 2719]

A noted neurophysiologist; 72 years old; went to the United States in 1943 and received a PhD in physiology; returned to China in 1956; was formally admitted to the CCP on 21 April 1979 at the recommendation of the CCP Committee of the Shanghai Institute of Physiology, Chinese Academy of Sciences. (JF 24 Apr 79 p 1)

Zheng Wanjun [6774 8001 6874]

President, Chinese Academy of Forestry Sciences; noted dendrologist; author of a book ZHONGGUO ZHUYAO SHUZHONG ZAOLIN JISHU [China's Principal Trees and Afforestation Technology]. (ZGXW 26 Apr 79 p 12)

Zhong Junlin [6988 0193 7792]

Vice President and Researcher, Guangdong Provincial Academy of Agricultural Sciences. (NF 7 May 79 p 1)

CSO; 4008

MICROBIOLOGY

AUTHORS: LIN Boquan [2651 0130 5425]
NIE Zhebg [5119 1767]
GUO Hengcong [6753 1854 5115]

ORG: All of Ningxia Agricultural College

TITLE: "Degeneration of Gleosporium sp. Strains"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6
No 2, Apr 79 pp 1-4

ABSTRACT: A study on the causes of the degeneration of Gleosporium sp., a fungus used in the control of dodder (*Cuscuta japonica*), reveals that this fungus is very unstable, and that, after generations of nuclear mutations, a second low pathogenic sultant form (form II) has developed from the original high pathogenic parental form (form I), the proportion of form II of which increases with increasing generations. It is therefore recommended that pure form I strains must be timely supplemented during the production process, and that selective isolation of form I strains may be effected by inoculation of the degenerated strains onto dodders for resurgence before the isolation.

[Continuation of WEISHENGWUXUE TONGBAO Vol 6 No 2, Apr 79 pp 1-4]

The original manuscript was twice edited and corrected by Prof. Yu Daba [0205 1129 6876] of Beijing Agricultural University.

AUTHORS: JIE Sibi [6043 1895 3125]
WANG Fuwan [3769 4395 5502]
GAO Tianxiang [7559 1131 4382]

ORG: JIE of Shandong Academy of Agricultural Sciences' Plant Protection Laboratory, WANG of Shandong Rongcheng County Agricultural Technology Station, and GAO of Shandong Medical College's Electron Microscope Laboratory

TITLE: "Grubs Controlled by *Bacillus popilliae* Dutky"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6
No 2, Apr 79 pp 4-7

ABSTRACT: The authors report a three-year study on the control of grubs by *Bacillus popilliae* Durky that have seriously infested the peanut farms in Shandong province. Following the isolation, identification and culture of two local strains, namely *Holotrichia morosa* Waterhouse and *Eotrichia titanis* Reitter, and confirmation of their pathogenicity through injection and feeding over the farms of three communes and five production brigades in Shandong Rongcheng county, it is concluded that the strains can definitely suppress the insect population effectively, provided the temperature is between 26°C and 30°C, and the application is higher than 100 billion living spores per mou.

AUTHORS: HUANG Shanbin [8645 1472 2430]
HONG Lizhou [3163 7812 4126]

ORG: HUANG of Department of Forestry of Fujian Forestry College, and HONG of Fujian Tungan Tingqi Forest Protection Field

TITLE: "China-fir Bacterial Blight and Its Control"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6
No 2, Apr 79 pp 7-10

ABSTRACT: The authors report a three-year study on China-fir bacterial blight, and the methods of its control, a disease that has seriously infested the China-fir forest plantations in southern Fujian province. Following a review on the observations on its symptoms, the identification of the principal pathogenic bacteria as a species of *Pseudomonas* sp., and the establishment of its infectious cycle, and its relationship to climates, ground condition and forestation techniques, it is recommended that its control should be directed toward selection of good seeds and seedlings, adoption of appropriate forestation techniques, intensive field management, and regular and timely spraying of such pesticide as tetracyclines.

AUTHOR: None

ORG: Bacterial Strain Laboratory, Shanghai Modern Fermentation Plant

TITLE: "Selective Culture and Mutagenesis of the Antiphagocytic Strains of Neutral Proteinase-producing Bacteria AS 1,398"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6 No 2, Apr 79 pp 11-12

ABSTRACT: To cope with the repeated phagocytic contaminations in the production of AS 1,398 neutral proteinase that occurred since 1969, this article reports a successful selective sieving of the antiphagocytic strains KC34 that are identical to the original strains in production characteristics, and then the obtaining of the high-yielding Kpb38 strains by diethyl sulfate and ultraviolet mutagenesis from the antiphagocytic strains KC34. Because of its antiphagocytic characteristics, and its confirmed increase of neutral proteinase yield by 20%, the new Kpb38 strains were put into the plant's production since September 1978, and has gained acclamation for nationwide promotion.

AUTHOR: None

ORG: Cellulase Research Section of Chinese Academy of Sciences' Chengdu Institute of Biology, Sichuan Ziyang Sugar Plant

TITLE: "Enlarged Experiment on Cellulase Sugar 'Marrow' Hydrolysis and Fodder Yeast Production"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6 No 2, Apr 79 pp 13-15

ABSTRACT: In the enlarged experiment on the cellulase hydrolysis of spent cellulose-containing sugar "marrow" into sugar and fodder yeast, this article reports the use of 2,000 cubic liter tank for the continuous enzyme hydrolysis, and 1,000 cubic liter tank for continuous yeast culture, as well as the establishment of the optimal procedure, raw materials, pH, temperature and other conditions involved in the sugar "marrow" pretreatment, enzyme hydrolysis and yeast culture. It is found also that the ventilated CMC living enzymes should best be stabilized at 120 mg/ml or more, and that the yield of sugar from sugar "marrow" can be 48-49%, and that of yeast can be about 70%.

AUTHORS: LO Zhiteng [5012 1807 7506]
YEN Rixiang [7346 2480 4382]
ZHANG Yizhong [1728 5030 1813]
WU Xiaojin [6762 1321 6651]
CHA Zhikuan [2686 1807 1401]
LIU Wanan [0491 5502 1344]
ZHANG Ruyu [1728 5423 3768]
WANG Juying [3769 5468 5391]
ZHOU Luduo [0719 6922 1077]
WANG Youcai [3769 2589 6299]

ORG: All of Department of Biology, Northwestern University

TITLE: "Preliminary Experiment to Improve the Quality of Liquid Fermented White Wine"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6
No 2, Apr 79 pp 15-19

ABSTRACT: The authors report a series of experiments on the adoption of a mixture of multiple enzymes and multiple bacteria for the production of better quality white wine by liquid fermentation. It is found that by

[Continuation of WEISHENGWUXUE TONGBAO Vol 6 No 2, Apr 79 pp 15-19]

using sorghum as the starting material, YK12, Y4, AS2470 and AS21182 as the yeast, C10 and C2 as the bacteria, water at 1:3.5-4, degree of sugar at B_x16° , natural pH, temperature at 28°C , and fermentation for 72 hours, a clear white wine distilled from earthenware pot of between 64° and 61° proof and good aroma and smooth taste can be obtained.

Tang Qingyi [0781 1987 5030] and Ran Xiuling [0373 4423 3781] of Shaanxi Lonan County Winery participated in part of the experimental work.
Li Zhongxian [2621 0022 2009] and Wang Guoxun [3769 0948 3800] assisted in the research.

AUTHORS: YUE Dechao [1471 1795 6389]
YANG Yunpeng [2799 0061 7720]
HUO Zemin [7202 3419 3046]

ORG: All of Beijing Institute of Pharmacology, Chinese Academy of Medical Sciences

TITLE: "Study on *Armillariella mellea* Immobilized Fermentation"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6
No 2, Apr 79 pp 10-20

ABSTRACT: The authors report a study on the deep culture and immobilized fermentation of *Armillariella mellea* since 1971, when it is proved that the fermentation product of *Armillariella mellea* possesses almost similar biological activity and therapeutic effect as the very scarce but commonly-used traditional Chinese medical herb *Gastrodia elata* Blume. The study is based on the characteristic intimate relationship between *Gastrodia elata* Blume and *Armillariella mellea* in natural environment. The study on immobilized fermentation is aimed at developing a simple and economical process for promotion in rural and remote areas.

AUTHORS: LIU Qingwu [0491 1987 2976]
ZHAO Wenbin [6392 2429 1755]

ORG: Both of Lianyunjiang City Epidemic Control Station

TITLE: "Inhibition Effect of *Allium Scorodoprasum* L. Oil, *Aspidium falcatum* Sw. and *Isatis tinctoria* L. Leaf on Influenza Virus"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6
No 2, Apr 79 pp 20-21

ABSTRACT: This article reports a study on the inhibition effect of the popular traditional Chinese medical herbs *Allium Scorodoprasum* L. oil, *Aspidium falcatum* Sw. and *Isatis tinctoria* L. leaf on the locally isolated new type A₁ influenza virus by chicken embryo semi-intracoreal inhibition tests. By infecting the virus 60 minutes after the respective herb administration, or vice versa, it is found that all the three herbs exert distinct and definite inhibition on the virus, and that the inhibition effect of the herbs is also directly proportional to the concentration of the herbs administered. It is confirmed also that the volatile oil or allicin is actually the principal bactericidal constituent of *Allium Scorodoprasum* L.

AUTHOR: HONG Mengmin [3163 1322 3046]

ORG: Microbiology Laboratory, Shanghai Institute of Plant Physiology,
Chinese Academy of Sciences

TITLE: "New Advances in Bacterial Drug-resistance Mechanism Research"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6
No 2, Apr 79 pp 22-28

ABSTRACT: This review of new advances in bacterial drug-resistance mechanism research covers: 1) genetics of the R-factor with regard to the plasmids, effect of genes and other factors in R-factor transference, and models of R-factor genetic structures; 2) the molecular biological characteristics of the R-factor in connection with the extra-chromosome DNA, molecular weight and configuration, the order of nucleotides, and the level of drug-resistance; 3) the biochemical mechanism of bacterial drug-resistance that involves changes of cell membranes, and enzymes that change the structure of bacterial ribose and antibiotics; 4) the origin of the R-factor; and 5) the solution to bacterial drug-resistance through R-factor elimination, antibiotic structural reformation, new antibiotics, and new enzyme inhibitors.

AUTHOR: MAO Weiying [3029 4850 3379]

ORG: Institute of Microbiology, Chinese Academy of Sciences

TITLE: "Modern Fermentation Tanks and Their Automation"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6
No 2, Apr 79 pp 28-34, 40

ABSTRACT: The author introduces the construction, performance and characteristics of some principal modern fermentation tanks that include: 1) the universal tank; 2) the Waldhof tank; 3) the self-priming tank; 4) the Venturi tank; 5) the air-lift tank; 6) the Lefrancais-Mariller tank; 7) the tower tank; 8) the cyclone separation tank; 9) the high oxygen transmission tank; 10) the pressure circulation tank; and 11) the rotor tank. The modern techniques of controlling the temperature, air flow, pressure and pH, automatic determination of dissolved oxygen, automatic elimination of foaming, and the adoption of computer programming control system are also introduced.

AUTHORS: SHOU Deqing [0719 1795 1987]
ZU Ruofu [4371 5387 1133]

ORG: Both of Department of Biology, Shanghai Fudan University

TITLE: "A Simple Method to Isolate Fungus Monospores"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6
No 2, Apr 79 pp 35-36

ABSTRACT: The simple technique for the isolation of fungus monospores introduced involves pregermination of the spores, the use of thick-walled, ground-mouthed capillary dropper to drop germinated spores onto the inner wall of dish covers, and finally the pouring of a thin layer of 4% water agar agar to the bottom of the isolation chamber or dish cover to provide a more favorable condition for prior massive growth of pure bacteriophage.

AUTHORS: LO Xianan [5012 6343 1344]
TU Anqian [3205 1344 0578]

ORG: Both of Wugong Northwestern Institute of Water and Soil Conservation

TITLE: "Application of Acetylene Reduction in Biological Nitrogen
Fixation Research

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6
No 2, Apr 79 pp 37-40

ABSTRACT: A study on the reliability and representativeness of nitrogenase activity determined by acetylene reduction as well as its optimal conditions concludes that: 1) optimal partial oxygen pressure is 0.1; 2) optimal gas ratio is acetylene: oxygen: argon = 0.1: 0.1: 0.8; 3) the time required to reach acetylene reduction equilibrium induced by root tubercle and autogenetic nitrogenase is 10-20 hours for the former, and more than 48 hours for the later; 4) sampling analysis is 95% reliable within the root tubercle nitrogenase activity range of 32.30 - 41.84 micromolar/gram of dry tubercle; and 5) the nitrogenase activity determined by acetylene reduction is related to the nitrogen content in plants by the coefficient of +0.6475 and +0.6803.

AUTHOR: YANG Zhengshi [2799 2973 2514]

ORG: Drug and Biological Preparations Assay Laboratory, Ministry of Public Health

TITLE: " Common Bacteria Counting Methods for Biological Preparations"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6 No 2, Apr 79 pp 41-43

ABSTRACT: The author introduces the general principles and methods of counting the total number of bacteria by gravimetry, direct counting, turbidimetry and concentration calculation and conversion; and of counting the number of living bacteria by dish culture counting, and such other physiological-biochemical methods as staining, oxygen absorption, nitrate reduction and others.

AUTHOR: ZHOU Deqing [0719 1795 1987]

ORG: Department of Biology, Shanghai Fudan University

TITLE: "Comparison and Identification of the Morphology of the Four Principal Classes of Bacteria Colony"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6 No 2, Apr 79 pp 43-45

ABSTRACT: The principal characteristics of the hydrous state and apparent morphology of the colonies, the the interrelationships and morphological characteristics of monocellular bacteria and yeast bacteria, as well as mycelioid actinomycetes and fungus are tabulated for easy comparison and identification. In addition, such other referential characteristics as colony transparency, colony and medium binding, colony color, colony borders, rate of cell growth and smell are also respectively tabulated.

AUTHOR: None

ORG: This Journal

TITLE: "Third National Condiment Industry Conference"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6
No 2, Apr 79 p 45

ABSTRACT: This news brief reports the convening of the Third National Condiment (monosodium glutamate) Conference at Sichuan Wan county on 22-27 November 1978, and attended by 229 representatives from 133 related units. Besides reports on monosodium glutamate production observed abroad, the conference exchanged experiences on the fermentation, conversion, physiological assay, extraction and refining techniques of glutamic acid, endorsed the national monosodium glutamate quality unified standard and the unified calculation methods for its production technological economic indexes issued by the Ministry of Light Industry, and decided to strive to drastically reduce its cost of production in a shorter time, in addition to improving its quality.

AUTHORS: ZOU Jiaxiang [6760 1367 5381]
WEN Changming [2429 2490 2494]

ORG: None

TITLE: "'7216' Insecticidal Bacteria Identification Meeting"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6
No 2, Apr 79 pp 45-46

ABSTRACT: This news brief reports the convening of a meeting, sponsored by the Hubei Provincial Science Committee, on 1-4 December 1978 at Tianmen county to identify the "7216" insecticidal bacteria, and attended by 64 representatives of 46 units from 11 provinces. The bacteria, a crystalline toxigenic Bacillus, was first discovered and isolated from naturally died cotton pink boll larvae in a cotton warehouse in April 1972. It was unanimously decided to name it Bacillus thuringiensis var. tienmensis (7216). In view of its stronger toxicity, faster growth and multiplication, and easier filtering, and the establishment of its liquid deep fermentation and immobilized production process, it was suggested that it be listed in the National Production Plan for promotion.

AUTHOR: SUN Wanru [1327 5502 0320]

ORG: None

TITLE: "Immobilized Penicillin Acylase 6-APA Production Identification Meeting"

SOURCE: Beijing WEISHENGWU TONGBAO [Microbiology Bulletins] Vol 6
No 2, Apr 79 p 46

ABSTRACT: This news brief reports the convening of an Immobilized Penicillin Acylase 6-APA Production Technique Identification Meeting at Shanghai on 21-25 December 1978, and attended by 112 representatives from 44 related units of 12 provinces. Sponsored by the Ministry of Chemical Industries, the meeting approved the technology of producing 6-APA from immobilized *Bacillus coli* AS1.76 and D₈₁₆, and considered that the preparation and stabilization of immobilized cells have attained the reported international level, that its reactor design was reasonable, that the process was simple, economical and free of pollution, and that this was the correct direction to solve the supply of 6-APA, a fundamental raw materials for large scale semi-synthesis of penicillin.

AUTHOR: YU Huijun [0205 1979 0689]

ORG: None

TITLE: "Selection of High Yielding PTA Enzyme Strains and the Quality Standard of PTA Enzyme Preparations"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6
No 2, Apr 79 p 46

ABSTRACT: This news brief reports the successful selection of a higher PTA enzyme activity strain of *E. coli* B₂₃ (AS1.77), and the determination of the production technology of PTA enzymes by the Shanghai Institute of Industrial microbiology. The Huadong Drug Examination Conference held on September 1978 at Suzhou considered that the process was unique, reliable and deserve promotion, and proposed that the specification should for the time being be 60 units per ampoule, when diluted to 30 units per ml, ΔE_{PTA} should be 0.05-0.08, and that of the PTA enzyme substrate dilithium acetylphosphate should be 25 mg per ampoule, with purity not less than 60%.

AUTHOR: TAO Zengxin [7118 1073 9387]

ORG: None

TITLE: "Normal Alkane Fermentation-produced Long Chain Binary Acid Medium Scale Experiment Assay Meeting"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6 No 2, Apr 79 pp 46-47

ABSTRACT: This news brief reports the convening of a normal alkane fermentation-produced long chain binary acid medium scale experiment assay meeting, sponsored by the Shanghai Chemical Industry Bureau, on 26-29 December 1978 at Shanghai, and attended by 73 representatives of 37 related units. After hearing reports on the said medium scale experiment, as well as experiment on the use of mixed binary acids in the trial production of nylon engineering plastics, plasticizers and perfumes, a discussion was made which unanimously acclaimed the superiority of the *Candida tropicalis* mutant strain U₃₋₂₁ fermenting of light wax to obtain mixed binary acids, the product of which may replace the sebacic acid obtained from castor oil cracking, with better flexibility.

AUTHOR: MO Ling [5459 0407]

ORG: None

TITLE: "Lysine- and Iso-leusine-producing Fermentation Technology Assay Meeting"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6 No 2, Apr 79 p 47

ABSTRACT: This news brief reports the convening of a lysine- and isoleusine-producing fermentation technology assay meeting, sponsored by the Changzhou Light Industry Bureau, on 12-15 December 1978, and attended by 48 representative from 32 related units. Following a report on the research conducted jointly by the Changzhou Condiment Plant and the Institute of Microbiology of the Chinese Academy of Sciences, and a tour around the research facilities, its application to full scale production was approved. In a discussion on the use of the amino acids as fodder additives, transfusion liquid and biochemical reagents, it was acknowledged that the fermentation technique can still be improved, and the cost of production further reduced.

AUTHOR: CHEN Qishui [7115 0796 3055]

ORG: None

TITLE: "Vase Culture of *Auricularia auricula judae*"

SOURCE: Beijing WEISHENGWUXUE TONGBAO [Microbiology Bulletins] Vol 6
No 2, Apr 79 p 47

ABSTRACT: This news brief reports a successful culture of *Auricularia auricula judae* by cultivating *Tremella fuciformis* Berk. of 7701 and Zhangzhou origin in vase filled with 78 jin of *Platanus orientalis* L. sawdust, 18 jin wheat bran, 1 jin sugar at pH 6.2-6.8, and about 56% water, with temperature, relative humidity and ventilation controlled as specified. The entire cultivation process requires 35-40 days. The yield is 6-8 grams per vase, or 2,100-3,500 grams per dan of saw dust.

11,206

CSO: 4009

OBSTETRICS

AUTHOR: None

ORG: National Female Long Acting Oral Contraceptives Coordinating Group

TITLE: "Clinical Observations on Long-acting Oral Contraceptives: A Report of 43,373 Cases

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 pp 65-67

ABSTRACT: This paper summarizes the experience in the use of female long-acting oral contraceptives in various areas of the country over the past seven years. Through repeated observation and study, incidence of breast cancer and cervical cancer among the user was not discovered to be higher than the natural incidence rate, while the incidence of benign breast cancer was found to be lower. Due to the fact that the estrogen content of the drug is relatively high while the progesterone content is not long acting, reactions similar to early pregnancy and heavy leucorrhea are obvious side-effects to cause inconvenience for the users. All victims of acute or chronic hepatitis, gastritis, uterine sarcoma, and obesity, and those who have a familial history of diabetes and nursing mothers should not use this contraceptive. This paper was received for publication on Jan 1979.

AUTHOR: YU Xiaolian [0205 1420 5571]

ORG: Shanghai Clinical Coordination Group of Me-Quingestanol Contraceptive Pill

TITLE: "Clinical Use of Me-quingestanol Contraceptive Pill"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 pp 68-72

ABSTRACT: On the foundation of Tanqin No 1 Contraceptive Pill, the group designed the compound contraceptive Me-quingestanol [Methyl-ether Antipregnancy Pill] Contraceptive Pill. Through continuous improvement of the technique of administration in the 3 years of clinical experimentation from January 1972 to December 1974, it has become a contraceptive of good effect, simple administration, few side-effects, and safety. When a couple regularly live together, one pill should be ingested the 6-7th day following menstruation, and one pill before each conjugation, or one pill every 3-4 days. Laboratory examinations of the users and clinical observations are reported. This paper was received for publication on 1 April 1978.

AUTHOR: WEI Youmin [0604 0645 3046]
LI Shuxiang [2621 1859 7449]
YANG Lizhen [2799 7787 3791]
BAO Xuan [7137 3894]
CHEN Huiqing [7115 1920 0615]
XU Weiqi [1776 4850 1142]
ZHANG Genmei [1728 2704 1188]
XIE Zhongming [6200 5907 2494]

ORG: ZHANG of Shanghai Twelveth Pharmaceutical Plant, WEI, LI, YANG, BAO, CHEN, XU, XIE of Shanghai Institute of Physiology, Chinese Academy of Sciences

TITLE: "Studies on the Mechanism of Action of Me-Quingestanol on Fertility in the Rabbit"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 pp 73-78

ABSTRACT: At either 48 hours or 24 hours before mating, the female rabbits were administered orally either one or two me-quingestanol contraceptive pills, and HCG was used to induce ovulation. Antifertilization effect was obtained in both cases. Through the experiment, it was observed that: (1) The anti-ovulation action: The effect does not appear to be a suppression of the development of the follicle in the ovary; (2) The drug causes an acceleration of movement of the ovule to lead to degeneration; (3) The drug affects the development of the endometrium to cause it to be unfavorable for the adhesion of the spermatozoa.

This paper was received for publication on 1 April 1978.

AUTHOR: SEGAL, S.J.

ORG: None

TITLE: "Endocrinic Level of Females Using Contraceptives (Outline)"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 12 Apr 79 p 78

ABSTRACT: This paper is based upon recordings of a report delivered by the author in Beijing in January 1979. The recordings were arranged by LIU Yixun [0491 0110 6064] and checked by LIU Jianchang [2692 1696 2490] et al of the Endocrinology Office, Institute of Zoology, Chinese Academy of Sciences. The author reports the determination of blood HCG of 150 women wearing IUD during the corpus luteum production stage. Results showed that one third of the women had positive HCG reaction; therefore, the author believed that these women did become pregnant and quickly aborted. The arrangers expressed doubts about this conclusion and carried out an experiment to verify it. HCG reactions were tested in 3 groups of women, 30 wearing IUD, 30 having had tubes tied, and 15 not receiving any contraceptive devices. Results proved that the IUD women's positive HCG was due to the result of a cross-reaction between HCG antibody and LH and not pregnancy and abortion. The endocrinic level of the group with ligation of Fallopian tubes did not show any obvious effects. Possible theories of the mechanism of IUD are suggested.

AUTHOR: CHEN Xuehuang [7115 1331 3552]
YAO Shiyi [1202 1102 0034]
ZHENG Huiguo [6774 1920 0948]

ORG: All of Research Group of Tubal Occlusion by Drugs, Second Teaching Hospital, Zhongshan College of Medicine

TITLE: "Sterilization by Occlusion of the Fallopian Tubes With Mucilago Phenol (A Seven-Year Clinical Observation)"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 pp 79-83

ABSTRACT: Since the report by Froriep of the use of silver nitrate for occlusion of Fallopian tubes in 1849, the use of chemicals for this purpose has had more than a century of history abroad. In recent years, the interest has been rekindled in laboratory experiments abroad but clinical applications remain few in number. Since February 1970, the group has studied the use of mucilago phenol for this purpose. Of the 3,940 cases attempted so far, the rate of success has been improved from the initial 77.63 percent to 93.50 percent, in the course of five stages of improvements. Clinical data of the cases are summarized. The current stage procedure is described. This paper was received for publication on 11 July 1978.

AUTHOR: CHEN Moye [7115 6855/5459 6855/5105]
XING Lianchun [1630 6647 2504]
CHEN Xuehuang [7115 1331 3552]

ORG: CHEN, XING of Pathology Office, CHEN of Department of Obstetrics and Gynecology, Second Hospital, Zhongshan College of Medicine

TITLE: "Analysis of Pathological Process in Fallopian Tubes After Injection With Mucilago Phenol in Relation to Its Sterilization Effectiveness"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 pp 84-86

ABSTRACT: Injecting drugs through the uterus into the Fallopian tubes to cause the tube cavity to close is a relatively simple technique of sterilization. The department has applied it with mucilago phenol to obtain a rate of successful sterilization of 77.63 to 93.50 percent. Through the observation of tissue slides of Fallopian tubes of 89 cases after successful sterilization with this technique, this paper reports the pathological process induced by the injection of mucilago phenol into the tubes. The reason for the possible of failure of this technique is investigated. This paper was received for publication on 11 July 1978.

AUTHOR: None

ORG: Shanghai Academy of Pharmaceutical Industries; Shanghai Coordination Group of Research in Nonoperative Sterilization

TITLE: "Pharmacological Study on Chemical Induced Tubal Occlusion in Rabbits"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 pp 87-90

ABSTRACT: Sterilization is one of the measures of family planning. Currently the common technique is ligation of the Fallopian tubes of the female, but the surgery often causes mental reservations in women; therefore, a painless, safe, and nonsurgical but effective technique of sterilization is urgently needed. In 1969, an electrical cauterization technique began to be studied in Shanghai. In 1970, mucilago phenol was adopted in Guangdong and high molecular adhesives for medical use of various types were adopted in Shaanxi, Jiangsu, Shanghai, Zhejiang, Hebei, Gansu, Kirin, and Shandong for direct injection into the vagina to cause occlusion of Fallopian tubes. On the basis of these reports, the group experimented the use of nine medicinal adhesives on healthy female rabbits for the purpose of comparing the effectiveness and safety of each or their compounds. The experiments and results are reported. This paper was received for publication on 4 December 1977.

AUTHOR: None

ORG: Department of Obstetrics and Gynecology, Xinhua Hospital, Shanghai Second College of Medicine; Shanghai Coordination Group of Research in Nonoperative Sterilization

TITLE: "Compound Mucilago Phenol for Fallopian Tubes Drug Sterilization (Outline)"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 pp 91-92

ABSTRACT: Since 1969, the group had applied electrical cauterization to the technique of insertion into Fallopian tubes for sterilization, which was improved to the application of high molecular adhesives. Results of these attempts were not satisfactory. Since 1972, a compound mucilago phenol agent has been adopted. Through animal experimentation and more than 5 years of clinical applications in 1,817 cases, relatively satisfactory results in 99.3 percent of the cases were obtained. The technique and the ingredients of the agent are described. Effects and side effects and problems related to the results are discussed. This paper was received for publication on 6 December 1977.

AUTHOR: CHEN Jiubo [7115 3280 3134]

ORG: Department of Family Planning, Center for Health Protection of Women, Zhejiang University of Medicine

TITLE: "Some Problems Concerning Operations for Reinstruction of Tubal Patency"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 pp 93-96

ABSTRACT: Reconstruction of fertility belongs to the field of plastic surgery. Common techniques include anastomosis, tubostomy, or transplantation of Fallopian tubes, transplantation of ovary, etc. From the end of 1971 to December 1977, restoration of fertility surgery was performed for 67 women, including 50 cases of anastomosis of Fallopian tubes after ligation. Follow-ups to September 1978 indicate a rate of success of 83.33 percent. Problems encountered in the process of fertility restoration of the various groups are discussed, including an evaluation of the technique of iodine oil x-ray of Fallopian tubes. Side-effects and complications following surgery for restoring fertility are also investigated.

This paper was received for publication on 23 January 1979.

AUTHOR: None

ORG: Biochemistry Teaching and Research Group, Zhejiang University of Medicine

TITLE: "Biochemical Analysis of the Copper Intrauterine Contraceptive Device"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 pp 87-102

ABSTRACT: The T or Y shaped copper IUD with polyvinyl supporting frame are a new type of IUD. They were first tried in Zhejiang Province in June 1972 and 3,724 women tried them, for a total of 7,791 woman-months. Of the group, follow-up data were available for 3,990 cases and the effective contraceptive rate was found to be 94.04 percent. The research work of the authors consists of primarily the condition of dissolution and corrosion of the copper wire after the insertion of the device, the safety of the device, and the biochemical mechanism of copper contraception. These subjects are discussed. It is the conclusion of the authors that the nondissolvable layer of copper oxide formed in the uterine cavity is in fact the material upon which contraception directly depends. The locally existing copper in the uterine cavity turns into cuprous oxide, to copper compounds, to copper ions to permeate the entire cavity of the uterus.

This paper was received for publication on 19 January 1979.

AUTHOR: None

ORG: Chongqing Municipal Obstetric and Gynecological Hospital

TITLE: "Observations on the Duration of Continual Intrauterine Insertion of Stainless Steel Ring"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 pp 103-105

ABSTRACT: The contraceptive effect of metal single ring has been confirmed here and abroad. It is welcomed by the masses as well. The duration of its continuous use remains an unresolved problem, however. For the purpose of understanding whether or not it is harmful to the human body if it remains inserted for a prolonged period of time and the duration of its safe insertion, 260 women with the ring inserted for more than ten years are studied to observe changes of clinical symptoms, to look for cancer cells in cervical smears, and to carry out histological investigation of the uterine endometrium. Results of these studies are reported.
This paper was received for publication on 20 November 1978.

AUTHOR: DOU Kefei [4535 0344 7236]
ZHU Shengrong [2612 3932 2837]
SHI Guilan [2514 2710 5695]
ZHAO Minzhi [6392 3046 1807]

ORG: All of Department of Radiology, Xi'an Hospital, Xi'an Railway Branch Bureau

TITLE: "Radiologic Observation of 200 Cases With Stainless Steel Ring-shaped IUD"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 p 106

ABSTRACT: The contraceptive effect of IUD may reach above 90 percent. It is convenient, economical, and simple to administrate. It is among the currently available better contraceptive devices. At present, three types of IUD are on use, and among them the metal ring type is the most popular. It is a spiral stainless steel or alloy wire ring of an external diameter of 24, 22, or 20 mm. This paper reports the x-ray signs of 200 women after the insertion of stainless steel contraceptive ring. The observed data are analyzed.
This paper was received for publication on 14 November 1978.

AUTHOR: YUAN Xingdi [5913 2622 1229]
WEI Renyu [7614 0088 2810]

ORG: Both of Surgery Office, Outpatient Clinic, Chinese Welfare Council International Peace Center of Health Protection for Women and Children, and the Second Research Office of Shanghai Institute of Physiology, Chinese Academy of Sciences

TITLE: "Intensified Electro-acupuncture in Induced Abortion"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 107-110

ABSTRACT: The negative pressure suction technique for artificial abortion has the advantages of less injurious and less hemorrhage. Ordinarily, women would accept this surgery without anesthesia or analgesics. In large quantity of practices, it has been observed that certain pain and other reactions do exist in such an operation, however. The technique of electro-acupuncture anesthesia or intensified electro-acupuncture were applied to a group of women less than 2 month pregnant. Before the surgery of negative pressure suction, no other drugs or labor inducing agent was used, but D and C were performed as an auxiliary measure. The operation usually lasted 3-5 minutes, with two surgeons attending. Another group of 100 women for whom no anesthetics were applied formed the control. Result of observation is reported.

This paper was received for publication on 13 March 1978.

AUTHOR: CHEN Jiubo [7115 3280 3134]

ORG: Department of Family Planning, Center of Health Protection for Women, Zhejiang University of Medicine

TITLE: "A Symptom-Complex During Artificial Abortion"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79

ABSTRACT: During the process of artificial abortion, a series of symptoms occurred, such as reduced heart beat, arrhythmia, hypotension, pale complexion, dizziness, chest stuffiness, profuse perspiration, fainting, convulsion, etc. which the authors call the artificial abortion complex reaction. For the purpose of investigating the cause in order to prevent and treat it effectively, the authors observed 400 outpatient and hospitalized cases. These were divided into 3 groups: One group of 263 women were observed for routine reactions; one group of 32 women were early pregnancy complicated by heart conditions, for whom acupuncture was routinely applied; one group of 105 women, whose heart beat was below 90 and for whom 0.5 mg of atropine was routinely applied intravenously for prevention. The incidence of the symptom-complex was 27.76 percent for the first group. Detailed results of observation are reported.

This paper was received for publication on 24 April .

AUTHOR: None

ORG: Department of Gynecology and Obstetrics, and EKG Office, Department of Internal Medicine, Zunyi College of Medicine Hospital

TITLE: "An Analysis of Electrocardiographic Changes During Artificial Abortion in 51 Cases"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 pp 116-117

ABSTRACT: In 1963, EKG examinations were carried out for 36 women following artificial abortion and 22 cases of reduced heart beat were discovered. Atropine was used for treatment and the effects were good. Toward the end of 1977, EKG examinations were again carried out for 51 women. Before the operation, existence of a history of heart disease was questioned and denied, blood pressure, heart beat, heart rhythm, etc. were checked and found to be normal. Before, during, and after the operation, EKG examinations were carried out to observe changes in the heart beat and the heart rhythm. Results of the study are reported.

This paper was received for publication on 15 May 1978.

AUTHOR: None

ORG: Beijing Gynecology and Obstetrics Hospital

TITLE: "An Analysis of 166 Cases of Uterine Adhesion After Uterine Curettage or Suction"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 pp 118-121

ABSTRACT: In the past, such complications as incomplete abortion, uterine injury, hemorrhage, infection, etc. possibly caused by suction and curettage of uterus for artificial abortion were familiar. In recent years, uterine adhesion following curettage and suction has become more common everyday, but it is not sufficiently recognized, and clinical misdiagnosis is common. This paper summarizes the 88 instances in Beijing Municipal Birth Control Coordinating Group, the 20 instances in Suzhou Municipal Second People's Hospital, and the 8 instances in Henan Xuchang District People's Hospital Department of Obstetrics and Gynecology. The clinical data are supplied by the 3 organizations. The pathogenesis, diagnosis, and treatment procedures are analyzed and reported in the paper.

AUTHOR: WANG Xichang [3769 3886 2490]

ORG: Huancheng Public Health Center, Tianshui City, Gansu Province

TITLE: "Introducing a Variable Resistance Location Finding Device for Locating the Opening of the Fallopian Tube in the Uterine Cavity"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 p 121

ABSTRACT: The determination of the openings of the Fallopian tubes in the uterine cavity is the key to nonoperative sterilization of females. The author and colleagues designed a variable resistance location finding device and tried it in 156 cases. For 51 cases of the group, the operation was performed under x-ray with iodine oil display agent. In 46 cases of the group, the location of the openings of the Fallopian tubes were accurately determined in one attempt. The structure of the device and the procedure of its application are described and depicted by drawings.

This paper was received for publication on 17 October 1977.

AUTHOR: ZHUANG Liqi [8369 3966 3825]
SUN Xiuchang [1327 4423 1603]

ORG: Both of Chinese Welfare Council International Peace Center for the Health Protection of Women and Children

TITLE: "Serum Antibody to Radix Trichosanthin After Its Use for Termination of Midterm Pregnancy"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 pp 122-124

ABSTRACT: Injectio Radix trichosanthin has good labor inducing effect and is simple to apply for the termination of midterm pregnancy. Its raw material is a large molecule plant protein. In 1972, 119 persons having had history of contact with the drug were given skin test and serum antibody determination; 49 positive skin tests and 77 positive serum antibody cases were discovered in the group to indicate that the human body has an antigen action to this drug and it can cause the body to produce specific antibody. In the process of national extension of its use, instances of death due to hypersensitivity to the drug have been reported. At present, its long term safety observation has not been reported yet. This paper reports an evaluation of serum antibody to the drug in 188 woman, 1-6 years after the use of the injectio agent for termination of midterm pregnancy. Results indicate that the antibody continues to exist after six years have passed, and it does not appear to have the tendency of diminishing each year. In the authors' opinion it is best not to use the same agent for the termination of another pregnancy in the same person to avoid hypersensitivity.

This paper was received for publication on 11 January 1979.

AUTHOR: WANG Zherhai [3769 2182 3189]
CHEN Wenlei [7115 2429 4320]
YING Guohua [2019 0948 5478]

ORG: WANG of Department of Gynecology and Obstetrics, CHEN of Department of Pathology, Second Hospital, Hebei University of New Medicine; YING of Electron Microscopy Group, Institute of Basic Medicine, Hebei University of New Medicine

TITLE: "Ultrastructural Study of Placentas in Yellow Daphne(Wikstroemia chamaedaphne Meisn.) Induced labor"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 pp 125-126

ABSTRACT: The Department of Gynecology and Obstetrics used injectio yellow Daphne for termination of midterm pregnancy. The drug, 0.4-0.8 ml (every 1 ml of the solution contains 1 g of raw drug) was injected into the uterine cavity and success was obtained every time with one injection. The fetus died before birth in every instance and the labor inducing rate of the drug was 100 percent. The drug has the advantage of fast action and little side reaction. Fifteen dead fetuses and placentas obtained through induced labor with yellow Daphne were observed through pathological examination and electron microscopic examination to investigate the labor inducing mechanism of the drug. Its actions were found to be multiple, but its toxic action on the fetus was positively confirmed by the pathological examination of the fetuses and the placentas. This paper was received for publication on 6 November 1978.

AUTHOR: WANG Wenyuan [3769 2429 0337]
GAO Wen [7559 2429]

ORG: Birth Control Research Team, Wuwei District Second People's Hospital, Gansu Province

TITLE: "Introducing a Simple Light Indicating Device for Detecting and Extracting IUD"

SOURCE: Beijing ZHONGHUA FUCHANKE ZAZHI [CHINESE JOURNAL OF OBSTETRICS AND GYNECOLOGY] in Chinese No 2, 18 Apr 79 p 127

ABSTRACT: Among the various contraceptive devices, IUD is currently a safe, simple, and effective one. For the purpose of guaranteeing the safety of women who wear the device and the effectiveness of the device, the authors designed an instrument using flashlight battery and having a small light bulb on one end. After the probing end is inserted in the uterine cavity, the circuit breaker will connect when it touches metal and the bulb will light up; otherwise it will not. The structure of the device is described in the paper, its structure is also depicted with several drawings. This paper was received for publication on 4 April 1978.

6168
CSO: 4009

PREVENTIVE MEDICINE

AUTHOR: None

ORG: Chinese Central Communist Shandong Province Yantai District Committee

TITLE: "Mobilize All Party Members and All Peoples to Speed up the Realization of Public Health Works (Outline)"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 65-70

ABSTRACT: This paper is an outline of a speech delivered at the National Patriotic Public Health Movement Yantai District on Site Experience Exchange Conference held in August 1978. As a part of reviewing the past accomplishments in the district, the speaker declares that smallpox, visceral leishmaniasis, and tetanus of the newborn have been basically eliminated in the entire district, while diphtheria, poliomyelitis, and measles epidemics have been basically controlled. Not all jobs in sanitation and hygiene are implemented, however. The appearance of the cities and the countryside is basically the same. Due to large quantities of flies and mosquitoes, incidences of malaria, dysentery, typhoid, etc. occur regularly. Several measures are proposed in the speech to improve the management of water and sewage, to combine sanitation with production in the management of fertilizer, and to launch mass movements to establish systems and organizations in matters of public health.

AUTHOR: None

ORG: Baishe District Public Health and Epidemic Prevention Station, Debao County Public Health and Epidemic Prevention Station, Guangxi Province

TITLE: "Huoma Oil Poison: Report of Survey of 232 Cases"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 p 70

ABSTRACT: Huoma oil is the oil of the seeds of *Cannabis sativa* L. It is used as a laxative in Chinese traditional medicine and contains several toxic substances. A certain carry-out used the oil to make deep fried pastries on 8 March 1978. Of the 249 persons who bought the pastries and ate them, 232 persons were poisoned. Symptoms of dizziness, thirst, headache, bitter taste in mouth, weakness, nausea, abdominal pain, and fast pulse appeared in 5 minutes after ingesting the pastry. The severe cases felt sleepy and had dilated pupils. All were treated and cured and there was no death in the group. According to the workers of the carry-out, they also suffered from the same symptoms as they inhaled the oil vapour while cooking the pastry.

AUTHOR: FU Dawei [0265 1129 3634]

ORG: Bureau of Public Health, Hebei Provincial Revolutionary Committee

TITLE: "Earnestly Learn the Experience of Yantai to Struggle for the Implementation of Public Health Work"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 71-73

ABSTRACT: This paper is an outline of a speech delivered by the author at the National Patriotic Public Health Movement Yantai District on Site Experience Exchange Conference held in August 1978. The author reviews the accomplishments of the patriotic public health movement in Hebei Province and acknowledges the shortcomings. Based upon the experience of Yantai, the author lists a series of jobs to be accomplished in the entire province of Hebei before the year 1985.

AUTHOR: LU Tianlin [4151 1131 2651]
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ORG. LU, CHEN, HUO, ZHANG, HE, JIA of Shanxi Provincial Public Health and Epidemic Prevention Station; SONG of Lyuliang District Public Health and Epidemic Prevention Station

TITLE: "Investigation of Mosquito Vectors of Epidemic Encephalitis B Virus"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 74-76

ABSTRACT: In 1958 the authors had isolated 7 strains of encephalitis B virus from persons who died of the disease and bodies of mosquitoes; all belonged to the areas of Jieyu, Linqi, etc. of Shanxi Province. For the purpose of further investigating the epidemiological principle of this disease, the authors selected Shuiwen County where the incidence of this disease had been high for several years as the site of experimental prevention work. Mosquitoes were collected to isolate the virus. Four strains were obtained. The procedure and the results are reported.

AUTHOR: LIU Xiaoxian [2692 1321 0341]
LIU Yuqing [4151 3768 3237]
XIONG Yimin [3574 6654 3046]
CHEN Minggai [7115 2494 2395]

ORG: All of Xiangyang District School of Public Health, Hubei Province

TITLE: "Lead in Urine of Healthy Persons"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 p 76

ABSTRACT: From November 1977 to March 1978, the authors selected among persons who had been local residents for more than one year and who had no occupational contact with lead to determine the lead content of their urine. One hundred normal and healthy persons, 53 males and 47 females, aged 2-62, with 89 percent 17-51, were thus selected and tested. Two specimens were taken from each person and analyses were completed on the same day of the specimen collection. Results indicate that the urine lead content varied from a minimum of 0 to a maximum of 0.06 mg/liter, averaging 0.0263 mg/l. Of the persons tested, 99 percent had a lead content of below 0.05 mg/l, and the standard deviation was 0.0016, the standard error 0.00012. There was no obvious difference of statistical treatment between the males and the females when the results were compared.

AUTHOR: None

ORG: Food Sanitation Research Office, Institute of Public Health, Chinese Academy of Medicine

TITLE: "Effect of Cooking and Processing on Organochlorine Pesticide Residues in Foods"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 77-81

ABSTRACT: Broad-spectrum insecticides, such as 666, DDT, etc. are stable and not easily decomposed in nature; therefore, their residues are generally retained in foods. Although a good deal of reports exist concerning the condition of insecticide residues in agricultural products, but most concern animal foods, vegetables, and fruits, and rarely concern cooked cereal foods. Experiments were carried out with wheat, grain sorghum, corn, flour, and pork. The grains were ground into flour, the flour was made into steamed bread, and the pork was chopped fine and made into meat balls and steamed, fried, and boiled. Residues in these foods, processed or cooked in all these different ways, were measured separately. In processing, most of the residues were found in the bran, while the various ways of cooking did not have any obvious effect on the insecticide residues retained in the grains or the flour.

AUTHOR: FENG Youfu [1756 2589 1381]

ORG: Anfu County Public Health and Epidemic Prevention Station, Jiangxi Province

TITLE: "Survey of Helminthic Infestations of Areas of Different Environmental Sanitation Conditions"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 p 81

ABSTRACT: In 1973, the author and colleagues selected an elementary and a middle school from the county seat where environmental sanitation was relatively better, two schools from a town of fair condition, and an elementary school from a rural village of poor condition to investigate the helminthic infestation condition of the 979 students of these schools. With the saline water floating technique, the stool of these students were examined to produce 740 positive infestation cases, amounting to 75.59 percent. The infestation rate was 56.28 percent for roundworm, 13.69 percent for hookworm and 5.62 percent for flagellates. The infestation rate of students of the rural village was 89.57 percent, those of the suburban town 66.67 percent, and those of the city 76.35 percent. Relationship between infestation rate and age and the difference between the sexes are also reported.

AUTHOR: XU Ge [6079 7245]
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MA Xingwu [7456 5281 3541]
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DING Daofang [0002 6670 5364]
FU Chunsheng [0256 2504 0524]

ORG: XU, HE of Department of Radiology, First Hospital, Chinese Academy of Medicine; MA, LIU of Shenyang First Lath Plant Workers Hospital; DING, FU of Department of Public Health, Chinese University of Medicine

TITLE: "Hand Osteoarticular Changes in Workers Using Vibratory Tools"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 82-85

ABSTRACT: Of the 170 workers operating pneumatic vibratory tools of the casting machine shop of a certain lath plant of Shenyang, x-ray examinations of hands, radius, and ulna were carried for all while 127 of them had complaints of headache, dizziness, weakness, loss of memory, difficult to concentrate, insomnia, lumbago, pain of upper limbs and hands, and numbness. Clinical and x-ray signs of the group are analyzed and reported.

AUTHOR: ZHANG Shibao [1728 4258 1405]

ORG: Occupational Disease Prevention Group, Tianfu Coal Mine Workers Hospital, Chongqing

TITLE: "Variations of Serum Mucoprotein and Copper Blue Protein of Anthracosilicosis Victims"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 p 85

ABSTRACT: For the purpose of further studying the value of serum mucoprotein and copper blue protein for the early diagnosis and evaluation of anthracosilicosis, in 1976 the author and colleagues used the tyrosine technique to determine serum mucoprotein and the Sunderman technique to determine copper blue protein of 291 victims and 402 suspected victims of this disease. All of the group had worked with coal dust for 10-40 years, and their ages varied from 32 to 72. Healthy blood donors who had no contact with coal and whose liver function was normal formed a control group of 75 persons. The results indicated that the serum mucoprotein content of the anthracosilicosis victims changed somewhat, while the change in copper blue protein was not apparent. The data of both group are reported.

AUTHOR: None

ORG: Public Health Teaching and Research Group, Hunan College of Medicine; Public Health Teacher Training Class, Hunan College of Medicine

TITLE: "Mercury Content of the Blood, Hair, and Urine of the Population of Changsha"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 86-91

ABSTRACT: Due to the fact that mercury and its compounds are extensively applied in industrial and agricultural production and distributed in the environment, the human body may regularly absorb a small quantity of mercury from the atmosphere, water, foods (especially fish and shell fish) and drugs. For this reason, a survey of the normal level of mercury content in persons who have no occupational contact with it is important in the prevention and treatment of related occupational diseases and in protecting the environment. There have been many domestic reports on the normal mercury content of urine, but due to different techniques used for determination, the results vary. This paper reports the use of the F733 mercury testing instrument made by Fudan University to test the urine, hair, and blood of 192 inhabitants of Changsha, 114 men and 78 women. The results and the normal range are discussed.

AUTHOR: LUO Zhijian [5012 1807 1017]

ORG: Shangyao City Public Health and Epidemic Prevention Station, Jiangxi

TITLE: "Report of One Case of Asthma Due to Allergic Reaction to Tea Dust"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 p 91

ABSTRACT: The 48 year old man had always been healthy. He began to work in the tea processing room of Shangyao District Tea Plant in 1958. One day in 1964, while working, he suddenly felt a tightness in his throat, followed by itching, sneezing, running nose, cough, shortness of breath, and chest stuffiness. The medical service room of the plant diagnosed his condition to be upper respiratory infection or bronchitis, and prescribed ephedrine, diphenhydraminum, etc. which relieved the symptoms somewhat, but he had repeated attacks since then, and everytime the symptoms became more severe. He discovered one time in 1966 that during an attack of asthma, he did not need any drugs. If he just left the processing room as soon as he felt an attack was coming and rested for 4 to 5 days, he would recover without treatment. In 1974, he was transferred to another section of the plant. Whenever and wherever he drinks a cup of tea, the attack would immediately come on, however.

AUTHOR: None

ORG: Huiyang District Public Health and Epidemic Prevention Station, Heping County Public Health and Epidemic Prevention Station, Guangdong Province

TITLE: "Preliminary Investigation of the Border Intercepting Device and Its Effects in Rural Mucktraps"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 92-93

ABSTRACT: For the purpose of avoiding the complicated water seal structure yet keeping the privy from attracting flies and having maggots along the edge, a funnel shaped mucktrap was designed in 1973 and used in rural public restrooms. The effect of the trap in preventing the maggots from climbing out of the toilet was checked in July 1977. A survey of 11 restrooms found the traps to be not entirely effective. Improvement measures are suggested.

AUTHOR: CHEN Zuze [7115 4371 3419]

ORG: Guangdong Provincial Institute of Prevention and Treatment of Parasitism

TITLE: "Hong's Conversion Table for Computing Number of Eggs of Parasites"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 p 93

ABSTRACT: In the performance of thier work, the author and colleagues designed a conversion table for computing number of eggs of parasites in a stool specimen. Preliminary test use indicates satisfactory results. With the table, from the number of eggs in three glass-covered stool specimens, the number of eggs per g of stool may be obtained at a glance. The table is designed for adults. Ratios for children of different ages are provided.

AUTHOR: WEI Shaozheng [7614 1421 1767]
JIN Fuyou [6855 4395 2589]
FANG Kewei [2075 0344 1218]

ORG: All of Kirin Chemical Engineering Hospital

TITLE: "Prevention and Treatment of Acute Ammonia Poisoning"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 94-96

ABSTRACT: Although there have been domestic reports of acute ammonia poison, for the purpose of accumulating experience, the authors collect 26 cases treated at the hospital from 1973 to 1977, and report their relatively complete clinical data in the paper. Based upon the experience gained from these cases, the authors suggest that prevention of accidental leak is the key to preventing ammonia poison. Furthermore, the workers should wear protective masks and those who suffer from chronic liver diseases, bronchial asthma, and pulmonary emphysema should not be working with ammonia. Effective treatment measures for ammonia poison are also discussed.

AUTHOR: SHEN Yun [3088 0061]

ORG: Department of Radiology, Wuyi Section Hospital, Changning District, Shanghai

TITLE: "Report of Two Cases of Silicosis in the Rubber Industry"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 p 96

ABSTRACT: In a general survey in March 1977, two cases of silicosis were discovered at a certain rubber product manufacturing plant. Both were male workers above 50 years of age and both worked with mixing or refining rubber materials for more than 30 years. At that plant, in the processing procedure, a large quantity of white clay was used as filler. The Center for Prevention and Treatment of Occupational Diseases of Shanghai collected specimens of the white clay and analyzed it. It was discovered that the clay had a silicon dioxide content higher than the standard set by the state. The x-ray signs of both cases are reported.

AUTHOR: YU Xinxia [0151 2450 3174]
PAN Baoliu [3382 1405 3177]

ORG: Both of Fushan District Public Health and Epidemic Prevention Station, Guangdong Province

TITLE: "Experimental Poisoning of Wild Mice With Sodium Diphain"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 97-98

ABSTRACT: In the course of searching for the technique of exterminating wild mice over large acreages, in April 1977, the authors selected 160 mou of rice paddies in Gaofeng Brigade of Sanshui County to observe the effect of sodium diphain bait on wild mice. The sodium diphain used was the product of Lyuda Institute of Chemical Engineering. The poison was first melt in boiling water before adding rice in the solution to form the bait, which was placed near the rice hole or the walkway in the field. In the two experimental areas, a total of 183 mice of 3 species were killed. The two different densities of the drug were found to be both effective. Lethal dosages of the poison bait were fed to chickens and dogs as a safety test. All chickens survived and all dogs died. The dead mice found in the paddies were dissected and the findings reported.

AUTHOR: None

ORG: Pinghu County Marsh Gas Extension Office, Pinghu County Public Health and Epidemic Prevention Station, Zhejiang Province

TITLE: "On Side Experimental Observation of the Effect of Marsh Gas Treatment of Solid Waste on the Contents of Parasite Eggs"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 p 98

ABSTRACT: For the purpose of understanding the effect of marsh gas treatment of solid waste on the parasite eggs in the waste, from June 1977 to January 1978, four round marsh gas tanks with removable lids, which had been designed by the county were observed. The tank has a volume of 7 m³. For the experiment, after the materials, including night soil and other ingredients, were placed in the tanks, marsh gas was produced and used as usual. The night soil was analyzed to obtain the parasite egg count before it was placed in the tank, and after the marsh gas production. Each tank was thus observed once a month for six consecutive months. The results indicated that on the average the parasite eggs were reduced 99.87 percent. All schistosomiasis eggs were found to be killed; the number of hookworm eggs was reduced 99.98 percent. It was also observed that a great majority of parasite eggs sank and a 39.6 percent roundworm egg survival rate was found in the residue at the bottom of the tank. Treatment of the residue after it is removed from the tank with aqua ammonia, etc. is suggested.

AUTHOR: None

ORG: Public Health Teaching and Research Group, Hebei University of New Medicine; Hebei Provincial Institute of Occupational Disease Prevention and Treatment Research; Shijiazhuang City Public Health and Epidemic Prevention Station; Shijiazhuang City Third Hospital Department of Occupational Diseases

TITLE: "Preliminary Health Investigation of Workers Exposed to Polyacrylonitrile Fiber"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 99-101

ABSTRACT: In 1977, the authors examined 338 workers of a certain polyacrylonitrile fiber plant to determine the condition of their health. More than 80 percent of these workers are youths of 18-30 years of age. A general complaint of dizziness, nausea, skin itch was heard. A red rash was observed on the body of more than 70 percent of the group. During the spinning, there is usually an increase of absenteeism due to low fever, fast heart beat, and low blood pressure. The propylene nitrile content of the air in the plant, the propylene nitrile and nitrile sulfate contents of the dust and the raw materials are determined. Based upon the findings, measures are suggested to improve the production environment of the plant.

AUTHOR: ZHANG Fazhong [1728 3127 1813]

ORG: Yantai City Public Health and Epidemic Prevention Station

TITLE: "Observation of the Action of Trichogrammatid Wasps Used for the Prevention and Control of Orchard Pests On the Reduction of Organochlorine Residues"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 p 101

ABSTRACT: The city of Yantai has many apple orchards. Since 1975, one orchard was the first to overcome the viewpoint of simple reliance on chemical pesticides and began to use Trichogrammatid wasps in a comprehensive pest control program. In these 3 years, organophosphates and organochlorines have basically not been used. For the purpose of evaluating the effect of Trichogrammatid wasps and the condition of residues, if any, of organochlorines, a survey was carried out in September 1977. Compared with the 14 percent rate of pest-damaged fruit in 1972-1974, when more than 24,000 catties of chemicals were applied per year, the average rate of damaged apples was 2.16 percent in 1975-1977 when the wasps were used instead. Tests of 30 batches (8-10 apples per batch) disclosed no PP'-DDD. The contents of the 8 isomers of 666, DDT and metabolics averaged 0.0324 PP^m, not exceeding the permissible level of the state.

AUTHOR: TU Xin [3205 9515]

ORG: Hengyang Metallurgical Machinery Plant Workers Hospital

TITLE: "Preliminary Investigation of Nostril Diseases of Workers in Dusty Atmospheres"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 102-103

ABSTRACT: Industrial dust may cause inflammatory diseases of the upper respiratory tract and pneumoconiosis. For the purpose of clarifying the effect of industrial dust on the nostrils, the author and colleagues examined the nostrils of 1,667 workers in dusty atmospheres, in the various stages of casting, smelting, machining, alloying, etc. and 812 cases of nasal diseases were discovered. Preventive measures are suggested.

AUTHOR: None

ORG: Environmental Hygiene Research Office, Institute of Public Health,
Chinese Academy of Medicine

TITLE: "Standard for Evaluation of Sewage Purification(Suggestion)"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE
MEDICINE] in Chinese No 2, 25 Nov 78 p 103

ABSTRACT: This standard (suggestion) is formulated in accordance with experimental research and practical experience in sewage [solid waste, or night soil] purification in China, as well as some related data in foreign countries. In 1974, exchange meetings on this special subject were held in the 16 provinces, cities, and districts of the north and the 13 provinces, cities, and districts of the south separately. Opinions on revision of the standards were suggested then. After 3 years of testing, the standards were revised once again at the National Rural Environmental Hygiene Coordinating Conference in 1977 to form this suggested standards to be further revised and supplemented through practice. Two purification techniques of high temperature compost and marsh gas fermentation are given. Separate standards for the two processing techniques are listed.

AUTHOR: YU Zhiheng [0060 1807 1854]
HU Xuanyang [5170 1357 2254]
MA Tai [7456 3141]
LU Tizhang [4151 0232 4545]

ORG: YU, HU of Public Health Teaching and Research Group, Hebei University of New Medicine; MA, LU of Endocrinology Research Office, Tianjin College of Medicine

TITLE: "Our Views on the Tentative Standard Therapy and Prophylaxis of Endemic Goiter"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE
MEDICINE] in Chinese No], 25 Nov 78 pp 104-106

ABSTRACT: The Standard Therapy and and Prophylaxis of Endemic Goiter is a document representing a summation of China's own experience during the North China Iodized Salt for Prevention and Treatment of Endemic Goiter Special Conference held in Qinhuangdao in 1978. Related standards of foreign countries were consulted. The classification into stages of goiters, the regionalization of endemic goiter, standards of basically controlled and basically eliminated, and standards of diagnosis and prevention and treatment effects as contained in the document are evaluated and discussed.

AUTHOR: HE Chuanbin [6320 0278 2430]

ORG: Anhui Huainan Coal Mine Center for Prevention and Treatment of Anthracosilicosis and Tuberculosis

TITLE: "Preliminary Report of Chest Wall Blood Vessel Murmur in Anthracosilicosis"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 p 106

ABSTRACT: A group of 23 cases of third stage anthracosilicosis, aged 33-55 are reported. Eighteen of the group suffered from concurrent tuberculosis. Vascular murmur was detected in 36 points of chest wall, distributed in the upper and middle parts of the chest wall on both sides. Aside from two cases of death from suffocation due to massive hemoptysis, twelve of the group died of cardiopulmonary failure. Of the nine currently alive, six are in a state of chronic cardiopulmonary dysfunction; the remaining three are able to move about freely more or less. Pleural changes are common in anthracosilicosis and the change is especially serious among those with concurrent tuberculosis. Clinical and EKG signs of this group are analyzed.

AUTHOR: CAO Honghui [2580 3163 1145]
QIAO Xiuxin [0829 0208 0207]

ORG: Both of Jin ng District Public Health and Epidemic Prevention Station, Shandong Province

TITLE: "Serotyping and Drug-Sensitivity Tests on Dysentery Bacilli Isolated in Jinng District"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 107-109

ABSTRACT: For the purpose of investigating the condition of distribution of Bacilli dysenteriae, stool culture of some patients of the district in the two years of 1975 and 1977 was carried out to type and identify the strains and to test their sensitivity to Chinese traditional herbal drugs. A total of 23 strains were isolated; the biochemical reactions of all corresponded with the biochemical definition of Bacilli dysentery given by Ewing in 1949. Sensitivity of these strains to twelve Chinese traditional herbal drugs were separately tested.

AUTHOR: DONG Jianmin [5576 1696 3046]

ORG: Wuhu District Public Health and Epidemic Prevention Station, Anhui Province

TITLE: "Investigation of the Relation Between Epidemic Cerebrospinal Meningitis and Pharyngitis"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 110-111

ABSTRACT: If important links and fore~~tokens~~ of an impending epidemic of cerebrospinal meningitis could be mastered, effective measures may be taken to forestall the outbreak. For the purpose of observing the relationship between epidemic cerebrospinal meningitis, the authors carried out two surveys in 1967 and 1976, the two epidemic years, in the counties of Xiancheng, Nanling, Fanchang, and Guangde, with the help of local public health stations and basic public health officers. In Jan, Feb, Mar, and Apr of 76 throat culture was taken of groups of masses in epidemic areas as well as areas with epidemic. A total of 1,427 were examined and 418 cases of pharyngitis were discovered. The incidence was 38.85 percent in the epidemic areas and 10.72 percent in the nonepidemic areas. Of the 180 cases of meningitis observed in 67 in Guangde County Hospital, pharyngitis of various degrees of severity was discovered in 115 cases, amounting to 63.89 percent. When a patient recovered from meningitis, the condition of pharyngitis was cured at the same time.

AUTHOR: WU Yishui [0702 0181 3055]
ZHENG Youzhong [6774 0642 1813]

ORG: Both of Sanning District Silicosis Diagnostic Team, Fujian Province

TITLE: "Silicosis in Highway Caretakers: Report of Five Cases"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 112-113

ABSTRACT: In 1972, in a general silicosis survey of Sanning City, 78 highway caretakers were discovered to have silicosis-like changes in the lungs. They were observed for five years. Five of the group were tentatively diagnosed as highway caretaker's silicosis. The work condition and x-ray signs of the five and three others under observation are reported. An outline of the history of one case is included.

AUTHOR: WANG Xinying [3769 2425 4481]

ORG: Department of Internal Medicine, Yingkou Municipal Second People's Hospital

TITLE: "Report of One Case of Sodium Diphain Poison"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 p 113

ABSTRACT: The 21 year old female elementary school teacher ingested 3 g of sodium diphain and nine hours later she was brought to the hospital. After she was treated and observed for 7 days she was discharged because there were no discomfort and no tendency of hemorrhage. She resumed her work routine. About 10 days later, she felt increasing stiffness in her chest. There were bleeding spots on her lower limbs, followed by vaginal hemorrhage and hematuria. Treatment with 400ml of blood transfusion, vitamin K₃, etc. improved her condition in 3 days, but 5 days later abdominal pain, hematuria, and difficulty to swallow developed. More blood transfusion and vitamin K₁ finally brought her to recovery. The delayed action characteristic of sodium diphain is discussed.

AUTHOR: NIU Lanying [3662 5695 5391]
SONG Haiying [1745 5019 5391]

ORG: Both of Xi'an Railway Central Public Health and Epidemic Prevention Station

TITLE: "Infant Salmonella Food Poisoning"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 114-115

ABSTRACT: Infant Salmonella food poisoning is rare here or abroad. This paper reports two incidences. In 1972, 66 patients and visitors ate a snack made of soybean curd which had been stored under room temperature for 2 days. Four became sick 4 hours afterwards; 44 more persons became sick at 36 hours; and one was sick at 64 hours. The incidence rate was 69.4 percent. In 1977, 155 persons ate boiled fresh pork liver, and 71 of these became sick. Stool specimens were sent to public health and epidemic prevention stations of Beijing and Xi'an cities and ten strains of infant Salmonella were identified. Both groups recovered completely.

AUTHOR: None

ORG: Food Hygiene Research Office, Institute of Public Health, Chinese Academy of Medicine

TITLE: "Method of Analyzing Sevin Residue in Some Grains and Oils"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 116-120

ABSTRACT: The pesticide Sevin is broadspectrum, highly effective, low toxic, and low residue. It has now been listed in China as one of the substitutes for the highly toxic and high residue agricultural drugs and has been applied for rice, sorghum, millet, corn, cotton, vegetables, and fruits. A technique for testing Sevin residue in grains, refined seed oil, crude seed oil, and cotton seed is described. The residues detected with this technique in 32 specimens of rice and cotton seeds are reported in a table.

AUTHOR: SUN Yaqin [1327 7161 3830]

ORG: Department of Public Health, Wulancha League Public Health and Epidemic Prevention Station, Nei Monggol

TITLE: "Determination of Hexachrome in Industrial Liquid Waste"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 121-122

ABSTRACT: In liquid waste of such industries as electroplating and leather manufacturing, chrome often exists in both tri-valent and hexa-valent forms. In the process of attempting to remove the trichrome with sodium hydroxide, ammonium hydroxide, calcium hydroxide, etc. in order to determine the hexachrome, the elimination was never complete. Later, instead of any of the above, xonotlite was used to remove the trichrome. The result was satisfactory and the work procedure was simple. When trichrome reacts with xonotlite ($\text{Ca}_6\text{Si}_6\text{O}_{17}(\text{OH})_2$), the crystalline substance produced is difficult to dissolve and eliminate. For this experiment, CrCl_3 is used for that purpose. The experimental procedure is described.

AUTHOR: ZHANG Suchun [1728 2579 4783]
TAN Lishu [6223 4539 2579]

ORG: ZHANG of Biochemistry Teaching and Research Group, Wuhan College of Advanced Study for Physicians; TAN of Environmental Public Health Department, Wuhan Municipal Public Health and Epidemic Prevention Station

TITLE: "Technique of Determining P-Nitrophenol in Urine"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 123-124

ABSTRACT: The organophosphate insecticide parathion [1605] and chemical compounds containing para-nitrobenzene are transformed in the liver after entering the human body to become p-nitrophenol to be expelled from the body with urine. Thus, the p-nitrophenol content of the urine may be used as an index for the effect of a person's contact with these organophosphates, including water and environment polluted by them, on that person's body, so as to serve as an auxiliary diagnostic technique in clinical cases of organophosphate poison. Using Lawford and Elliott techniques as the foundation, the authors designed a technique and applied it to determine urine p-nitrophenol of close to 300 specimens in 1975-1976. The procedure is simple and takes only 15 minutes. It has a sensitivity range of 0-30 $\mu\text{g}/10\text{ ml}$. The technique is described.

AUTHOR: YE Kelong [0673 0344 7893]

ORG: None

TITLE: "Epidemiological Characteristic of Measles and Its Significance in the Formulation of Policy for Eliminating Measles"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 pp 125-128

ABSTRACT: Before measles vaccination was introduced, almost all adults had had measles. With proper care, death from measles was rare and after the disease, the person had stable immunity. Some people, therefore, believe that measles is not a dangerous infectious disease. As a matter of fact, complications from measles were not very rare, and measles mortality had remained 0.2-3 percent. Furthermore, parents had to stay home to care for the children who were sick with the measles. There was the effect on production and the economy. This paper explains the seriousness of measles as a disease, and the importance of the success in isolating the measles virus and in creating the measles vaccination. Proper age and technique for inoculating measles and other related problems are discussed.

AUTHOR: ZHOU Zhizheng [0719 1807 2973]
ZHOU Shouzheng [0719 1343 2973]

ORG: ZHOU of Yuxiang People's Hospital, Yongji County, Shanxi Province;
ZHOU of Yonghong Chemical Engineering Plant Workers Hospital

TITLE: "Investigation in the Normal Value of Whole Blood Cholesterase Activity"

SOURCE: Beijing ZHONGHUA YUFANGYIXUE ZAZHI [CHINESE JOURNAL OF PREVENTIVE MEDICINE] in Chinese No 2, 25 Nov 78 p 128

ABSTRACT: The authors used the polarized photometer count technique to test 336 healthy adults, 467 men and 119 women, to determine the whole blood cholesterase (ChE) activity. EKG, liver function, and chest x-ray were taken to screen the health of the subjects beforehand. When a subject had been determined to be healthy, he was also required not to have had contacts with organophosphate chemicals 3-6 months. The test procedure and the results are reported.

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